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ABSTRACT

This is the second technical report on the Basic Skills Assessment Program for the Department of Defense Dependents Schools (DoDDS). The report includes a summary of 1979-80 testing activities organized into five chapters. The first chapter provides an overview of report contents and a brief history of the testing program. The second chapter discusses the tests used in the program, their content, the process of test development, and the empirical characteristics of the tests, focusing on validity and reliability. The third chapter describes how the testing program was conducted in 1979-80, the regions and students involved, demographic characteristic of examinees, dates and procedures of test administration, and purpose of the 1980 testing program. The fourth chapter presents Basic Skills Assessment Test Results in the area of reading, language arts, and mathematics. Among these results are comparisons among regions, between sexes and between 1979 and 1980 for each of the areas tested. The final chapter presents an analysis of the curricular implications of test results. This chapter emphasizes strategies of remediation in specific skill areas and discusses the meaning of test results for teachers and other responsible for providing basic skills instruction. (Author/RL)

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BASIC SKILLS ASSESSMENT PROGRAM

TECHNICAL REPORT

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CHAPTER 1: INTRODUCTION

Overview

This is the second technical report on the Basic Skills Assessment Program conducted by the Department of Defense Dependents Schools (DoDDS) with the help of the Office of the Los Angeles County Superintendent of Schools' Test Development Center (TDC). The report includes a summary of FY 1979-80 testing activities organized into five chapters. The first chapter of this report provides an overview of report contents and a brief history of the testing program. Chapter Two discusses the tests used in the program, their content, the process of test development, and the empirical characteristics of the tests, focusing on validity and reliability. The third chapter describes how the testing program was conducted in FY 1979-80, the regions and students involved, demographic characteristic of examinees, dates and procedures of test administration, and purpose of the 1980 testing program. Chapter Four presents Basic Skills Assessment Test Results in the area of reading, language arts, and mathematics. Among these results are comparisons among regions, between sexes and between 1979 and 1980 for each of the areas tested. The final chapter presents an analysis of the curricular implications of test results. This chapter emphasizes strategies of remediation in specific skill areas and discusses the meaning of test results for teachers and others responsible for providing basic skills instruction.

Audience

This report was written for three audiences: measurement specialists, instructional staff, and parents. While some members of each group may have an interest in the entire report, particular chapters are keyed to specific audiences. Chapters of interest are indicated below:

> Measurement Specialists: For those interested in measurement theory and the application of one-parameter latent trait models to the development of achievement tests, Chapter Two and Three will be of particular interest. In these chapters, the procedures used to develop tests according to the principles of the Rasch Model are described and technical information about each of the tests is provided.
>
> Instructional Staff: For those responsible for delivering instruction in the basic skills, administrators, teachers and aides, the discussion of the testing program in Chapter Three and of its results in Chapter Four and Five will be of

particular interest. The comparative information presented in Chapter Four can help regional administrators identify curricular priorities, while the recommendations in Chapter Five should help teachers plan instruction.

Parents: Although the primary concern of parents is how well their children are doing, many are interested in the "quality of education" provided by the schools. The description of the testing program in Chapter Three and the general trends in student performance discussed in Chapter Four may address some of these concerns. In addition, the tables in the appendix displaying the objectives tested in FY 1980 will provide a general picture of the DoDDS Basic Skills Assessment Program.

History of the Basic Skills Assessment Program

The Department of Defense Dependents Schools (DoDDS) contracted with the Office of the Los Angeles County Superintendent of Schools Test Development Center (TDC) in the fall of 1978 to develop basic skills tests in reading, language arts, and mathematics. These tests were to be used for diagnosing deficiencies in basic skills areas and for planning appropriate instructional interventions. In addition, information from the tests would be used for formative evaluation of instructional programs.

Since the focus in the basic skills program was to be the measurement of individual students, the TDC adopted a one-parameter latent trait model that avoids many of the problems in describing individual performance inherent in classical test theory. The Rasch model is based on the assumption that student performance can best be estimated by measuring responses to a set of items of known difficulty. For most tests, the difficulty of an item depends on the distribution of ability in the particular group being tested, causing item difficulty values to change among samples. The Rasch model provides a method for estimating item difficulty that does not depend upon the characteristics of the particular group being tested.

The two main ingredients of the Rasch model are item difficulty and student ability. By obtaining the difference between these two variables, item difficulty values can be assigned. Rasch item difficulty is called a calibration value. Items are then placed on a scale in order of the ascending calibration values, forming an equal interval scale. Student performance is then described in terms of rank order on the scale of item difficulty, rather than rank order in the population of students being tested as under conventional test development models. How Rasch scores are interpreted is discussed in detail in the Basic Skill Assessment Program: Parent Pamphlet included with program materials in Appendix 1.

Using the Rasch model, the TDC developed reading and language arts tests for grades 9 and 11, and mathematics tests for grades 7 and 11 in the fall, 1978. Personnel of the TDC worked with measurement and curriculum staff in DoDDS to select the domains to be tested. This process included the identification of priority skill areas for each of the three subjects; reading, language and mathematics. Members of the TDC then selected test items that matched curriculum objectives. These items were presented to DoDDS staff for final selection, which was completed in January, 1979.

The tests given in the spring of 1979 are described briefly below:

> Reading, grade 9: A twenty-two-item form ranging in item difficulty from 419 to 665 with a mean difficulty of 546.
>
> Reading, grade 11: A seventeen-item form ranging in item difficulty from 456 to 698 with a mean difficulty of 540.
>
> Language Arts, grade 9: A twenty-nine-item form ranging in item difficulty from 424 to 630. The mean difficulty level of the items was 529.
>
> Language Arts, grade 11: A twenty-seven-item form ranging in item difficulty from 413 to 662 with a mean difficulty of 547.
>
> Mathematics, grades 7 - 11: A forty-item form ranging in item difficulty from 294 to 691 with a mean difficulty of 490.

A complete description of test content is available in the DoDDS Basic Skills Assessment Program, Technical Report, Spring, 1979.

Approximately 35,000 students were tested in the spring of 1979. Analysis of test results included a comparison performance in each of the subject areas by grade, a summary of demographic information included with the testing program, and a comparison of DoDDS scores with CTBS raw and scale scores. These data are presented in the basis skills assessment test technical report.

One recommendation from the 1979 testing program was the extension of basic skills testing into the elementary grades. As a result of this recommendation, the TDC, in conjunction with DoDDS measurement and curriculum staff, developed tests in reading for grades 3, 4, 6, 9, and 11, language arts for grades 3, 4, 6, 9, and 11, and mathematics for grades 3, 5, 7, and 11 for use in the 1980 program.

The basic skills assessment program described in this report is, therefore, more extensive in scope (grades 3 - 11 and N=65,018), and subject matter (reading, language arts, and mathematics) than the 1979 assessment.

CHAPTER 2: THE BASIC SKILLS ASSESSMENT TESTS

Part 1

Description

Basic Skills Assessment Tests were developed for selected grade levels in reading, language arts, and mathematics. This chapter describes these tests, their content, the process by which they were developed, and their empirical characteristics.

Test Content

The specific objectives for each of the Basic Skills Assessment Tests are listed in Appendix 2 in the tables of item difficulties. Test objectives, which were excerpted from the DoDDS scope and sequences for the appropriate grade level and subject, reflect not only the content emphases at each grade, but also different levels of cognitive performance as defined by Bloom's Taxonomy. Test objectives were chosen to meet two criteria:

1. They represent skills that, as much as possible, are introduced at a particular grade level.

2. They represent a cross section of a content/skill domain rather than minimal competencies.

Reading

Test content, the number of items per skill, and form difficulty for the reading test at grades 3, 4, 6, 9 and 11 are displayed in Table 1. Many of the same broad categories of skills are tested across grade levels; a few are restricted to the lower grades. For example, phonic analysis, thought to be an enroute skill in the development of reading comprehension, is tested in grades 3 and 4 only. Word recognition and meaning, structural analysis, and all forms of comprehension are tested across the grades. Reference and study skills, while appearing on all test forms, appear to be emphasized most at grade 9 and least at grade 3 in the DoDDS curriculum.

Figure 1 displays the test form means and range of item difficulties for each of the reading tests. The mean item difficulty for grades 3 -4 is the same, 472, but the range of item difficulties for the fourth grade test is considerably wider, reflecting the inevitable spread of student ability as children progress through school. The mean form

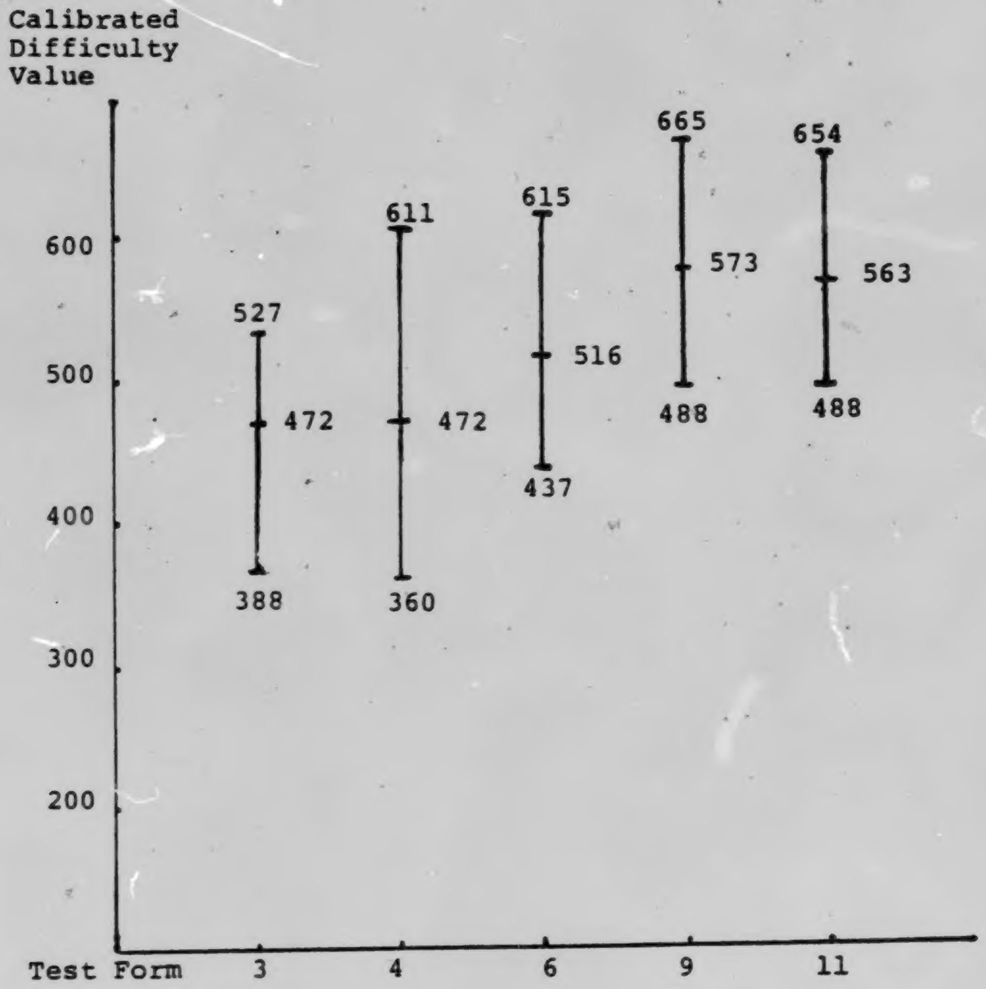
TABLE 1

Number of Items, Skills Assessed and Average Form Difficulty of the Basic Skills Assessment Tests

NAME OF TEST	GRADE LEVEL	TOTAL NUMBER OF ITEMS	NUMBER OF ITEMS PER SKILL		AVERAGE RASCH DIFFICULTY OF FORM AND DIFFICULTY RANGE
READING	3	26	Phonetic Analysis	7	472 (388-527)
			Structural Analysis	3	
			Word Recognition/Meaning	5	
			Literal Comprehension	5	
			Interpretive Comprehension	3	
			Evaluative Comprehension	1	
			Reference Skills	2	
	4	27	Phonetic Analysis	4	472 (360-611)
			Structural Analysis	2	
			Word Recognition/Meaning	5	
			Literal Comprehension	3	
			Interpretive Comprehension	4	
			Evaluative Comprehension	4	
			Reference Skills	5	
	6	26	Structural Analysis	5	512 (437-615)
			Word Recognition/Meaning	4	
			Literal Comprehension	1	
			Interpretive Comprehension	10	
			Evaluative Comprehension	4	
			Reference/Study Skills	2	
	9	29	Structural Analysis	3	573 (488-665)
			Word Meaning/Recognition	2	
			Interpretive Comprehension	11	
			Evaluative Comprehension	3	
			Reference/Study Skills	10	
	11	26	Word Recognition/Meaning	3	563 (488-654)
			Interpretive Comprehension	11	
			Evaluative Comprehension	8	
			Reference/Study Skills	4	

FIGURE 1

RANGE OF ITEM DIFFICULTIES FOR THE READING TEST



difficulty for the grade 9 reading test is 573, while grade 11 has a mean difficulty of 563. The reason for making the ninth grade form "harder" is that at this grade level there is still much time left for remediation and instruction in areas where students are low. By the eleventh grade, skills tested are more reflective of exit rather than enroute objectives.

Individual item difficulties for each of the tests and the actual frequency distributions of item difficulties are included in Appendices 2 and 3.

Language Arts

Table 2 displays test objectives, the number of items per objective, and the number of items on the entire test for the language arts tests. As in the reading tests, several objectives are assessed across grade levels. These include punctuation, usage, spelling, and sentence patterns/ structure. Other objectives such as capitalization in grades 3 - 4, or paragraph development in grades 9 - 11, are restricted to particular grade levels.

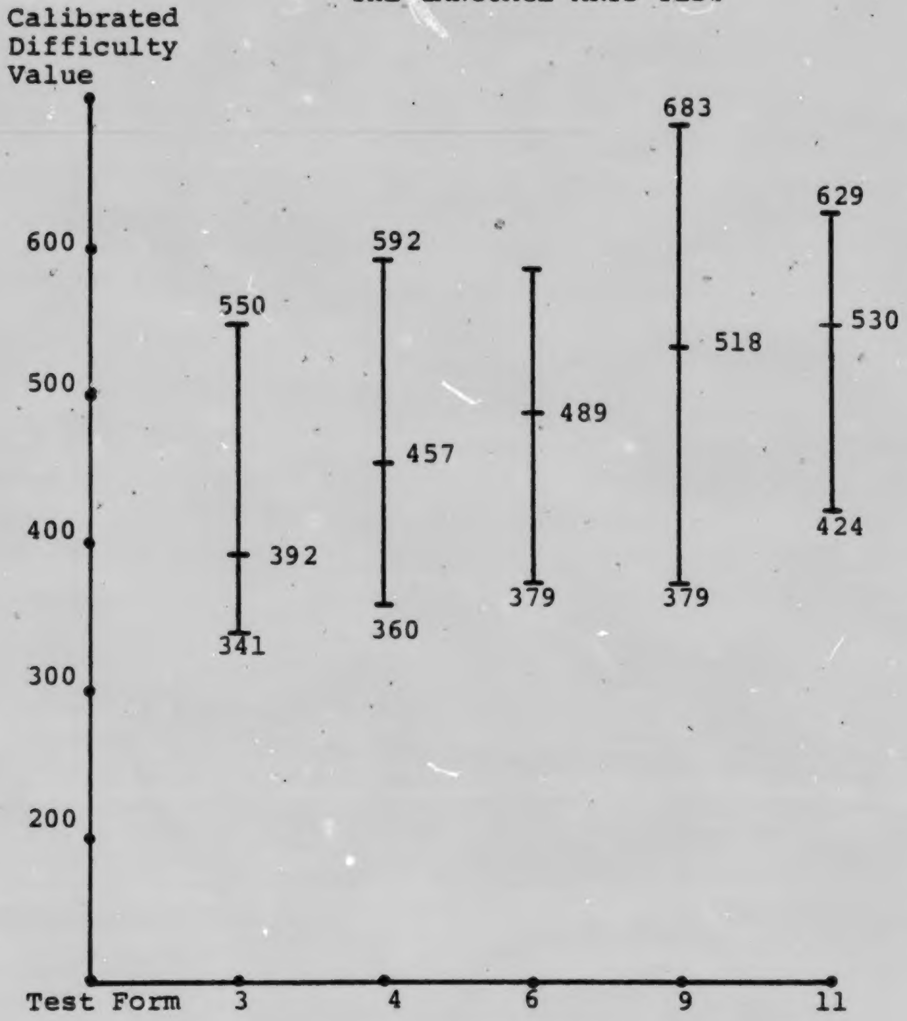
TABLE 2

Number of Items, Skills Assessed and Average Form Difficulty of the Basic Skills Assessment Tests

NAME OF TEST	GRADE LEVEL	TOTAL NUMBER OF ITEMS	NUMBER OF ITEMS PER SKILL		AVERAGE RASCH DIFFICULTY OF FORM AND DIFFICULTY RANGE
LANGUAGE ARTS	3	32	Capitalization	7	392 (341-550)
			Punctuation	6	
			Usage	5	
			Sentence Patterns/Structure	6	
			Word Forms	1	
			Spelling	7	
	4	32	Capitalization	3	457 (360-592)
			Punctuation	6	
			Usage	9	
			Sentence Patterns/Structure	5	
			Domains of Discourse	1	
			Building/Changing Sentence	2	
			Spelling	6	
	6	29	Punctuation	7	489 (379-581)
			Usage	7	
			Sentence Structure	4	
			Domains of Discourse	3	
			Building/Changing Sentence	2	
			Word Forms	1	
			Spelling	5	
	9	33	Punctuation	6	518 (379-683)
			Usage	6	
			Sentence Patterns/Structure	5	
			Domains of Discourse	1	
			Building/Changing Sentence	4	
			Paragraph Development	6	
			Spelling	5	
	11	32	Punctuation	2	530 (424-629)
			Level of Generalization	2	
			Spelling	5	
			Word Forms	1	
			Usage	3	
			Sentence Patterns/Structure	4	
			Domains of Discourse	3	
			Building/Changing Sentence	3	
			Paragraph Development	9	

FIGURE 2

RANGE OF ITEM DIFFICULTIES FOR THE LANGUAGE ARTS TEST



Test form difficulties are displayed in Figure 2. Unlike the reading test form, the mean difficulty of language arts tests increases across the grades with a low of 392 in grade 3 and a high of 530 in grade 11. The range of item difficulties is broadest at grade 4 and narrowest at grade 11, approximating the distribution of form difficulties in reading. Individual item difficulties are included in Appendix 1; the distribution of item difficulties appears in Appendix 2.

Mathematics

Table 3 displays the objectives tested, the number of item per objective and item difficulty ranges for the mathematics forms. The same five skills are tapped on all four tests: comprehension, computation, application, measurement, and computer knowledge. The distribution of items among these skills changes across the grades, with application having the fewest items in grade 3 and the most in grade 11. Computation has the largest number of items relative to the other skill areas at all grade levels.

The range of item difficulties of each of the mathematics test forms is displayed in Figure 3. The mean difficulty of the forms increases across the grades, with the largest difference in form difficulty appearing between grades 3 and 4, where the mean difficulty increases from 396 to grades 3 to 475 in grade 4. Unlike the reading and language arts tests, the test having the widest range of item difficulties in grade 3 rather than grade 4; the test with the narrowest spread of item difficulties in grade 4. Individual item difficulties for each of the mathematics test forms are displayed in Appendix 2, and the frequency distributions of difficulties for each of the forms in Appendix 3.

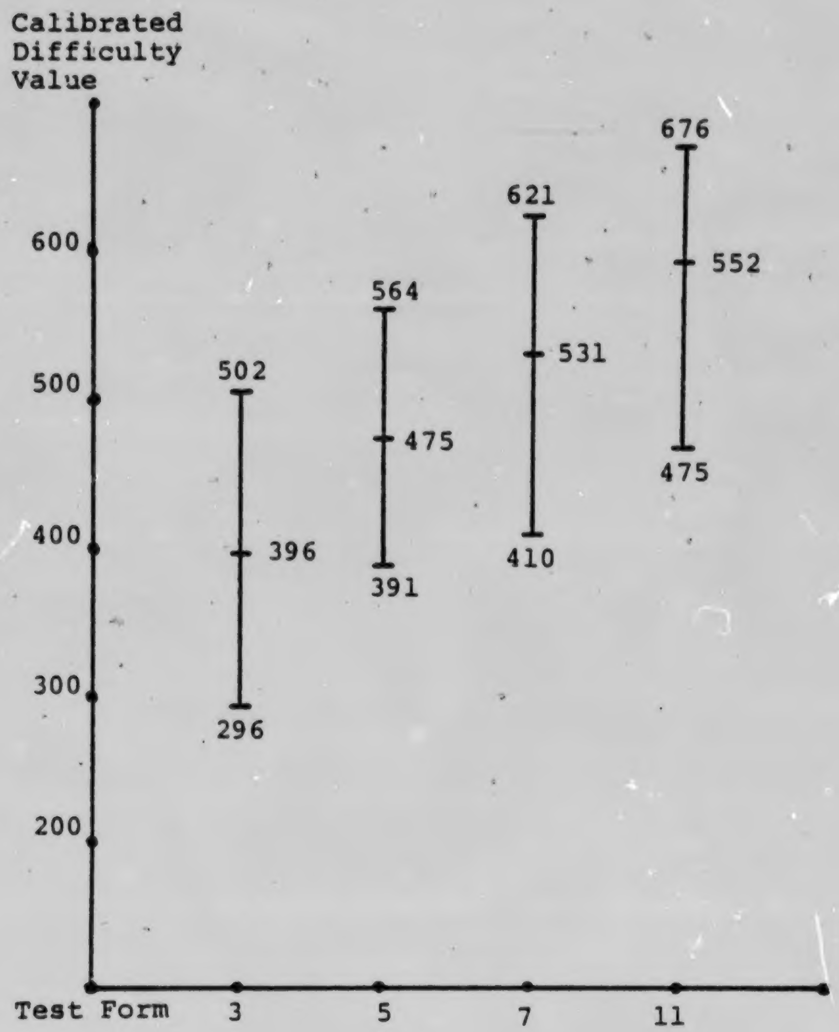
TABLE 3

Number of Items, Skills Assessed and Average Form Difficulty of the Basic Skills Assessment Tests

NAME OF TEST	GRADE LEVEL	TOTAL NUMBER OF ITEMS	NUMBER OF ITEMS PER SKILL		AVERAGE RASCH DIFFICULTY OF FORM AND DIFFICULTY RANGE
MATHEMATICS	3	30	Comprehension	11	396 (296-502)
			Computation	10	
			Applications	3	
			Measurement Comp. & App.	5	
			Computer Knowledge	1	
	5	30	Comprehension	5	475 (391-564)
			Computation	13	
			Measurement Comp. & App.	3	
			Application	8	
			Computer Knowledge	1	
	7	30	Comprehension	2	531 (410-621)
			Computation	18	
			Application	7	
			Measurement Comp. & App.	2	
			Computer Knowledge	1	
	11	30	Comprehension	2	552 (475-676)
			Computation	11	
			Application	12	
			Measurement and Domestic App.	4	
			Computer Knowledge	1	

FIGURE 3

RANGE OF ITEM DIFFICULTIES FOR THE MATHEMATICS TEST



Test Development

The Basic Skills Assessment Tests were constructed from the item bank at the Test Development Center of the Division of Program Evaluation, Research, and Pupil Services of the Los Angeles County Superintendent of Schools Office. This section describes how the TDC item bank was developed.

Acquisition of Items

The initial step in the development of each item bank required the collection of a large number of items. Sources utilized for this process included the National Assessment of Educational Progress, the Institute for Educational Research, California State Department of Education, the Alaska State Department of Education, Northwest Regional Educational Laboratory, Board of Education-Chalmette, Louisiana, Offices of the Los Angeles County and Fresno County Superintendent of Schools. The criterion for including an item in this initial collection was that the item have face validity with respect to some aspect of any one of the three defined content areas. Initially, no attempt was made to judge the quality of an item. The psychometric properties and the curriculum validity of an item were reviewed by experts in a subsequent step.

Creation of the Item Classification System

Concurrent with and following the acquisition of the initial pool of 2,500 items, work was begun on the development of an item classification system for each of the defined content areas. These classification systems were deemed necessary in order to provide both a method of determining the extent of curricular coverage of the proposed item banks and a system for accessing items with respect to a specific skill within a bank. Curriculum specialists, including teachers and directors of curriculum within each content area, were utilized for this task. Initially, these specialists reviewed existing systems with respect to their usability for item classification. Since none was identified as satisfactory for the purpose of item bank classification, a unique system was developed for each content area. Subsequent to the development of these systems, item review and classification procedures were established. This process required the services of curriculum and measurement specialists in order to review an item in terms of both its psychometric properties and its curriculum validity.

If an item was judged satisfactory with respect to specific criteria within each component of the review process, a classification number was assigned. This number identified the specific skill being assessed by the item and also provided a unique acquisition number. If an item fell outside the classification system but was determined by curriculum specialists to be assessing a desired skill, the item was retained and the appropriate skill was added to the classification system. The curriculum specialists also assigned a grade level to the item based on their estimate that approximately 60 percent of the students at a given grade level would answer the item correctly. Using this grade-level assignment, the items within a content area were ordered according to difficulty from "easy" to "hard." This ordering was to be used in a subsequent step when forms were administered to students during the calibration process.

Assignment of Items to Test Forms

The third major step in the development of each calibrated item bank required the assignment of items to test forms. Such a process was necessary because no one student or group of students could be expected to respond to all items within a content area. The process of assigning items to forms was accomplished in such a manner that all forms within a content area were linked together by pairs of common items. This linking structure formed a net-like pattern, allowing all items to be subsequently calibrated onto a common scale. Any individual student would take only a single form appropriate to his/her ability level and containing approximately 30 items.

This linking process was accomplished by utilizing a computer program developed specifically for this task. In order to control the range of difficulty within any one form, this program was run several times varying the number of items per link. The number of items was limited to a maximum of 30 per form. Based on an analysis of the results of the computer runs, the math forms were developed by using three items per link; the other two content areas had one item per link. In the area of reading, where items were dependent upon a specific reading passage, the passage--not an indivdual item--became the link. All items associated with a passage were kept to a minimum of three, with a maximum of five. A separate subset was identified because it was deemed desirable also to have items which were not passage-dependent. Since the final bank was to contain both types of reading items, there was a 30 percent overlap of items between the two subsets. Through this overlap, it was subsequently possible to calibrate all items onto a common scale in the area of reading.

Administration of Forms to Students

The fourth major step in the development required the administration of forms to students. Although 200 valid responses have been shown to provide a stable item calibration, each form was administered to at least 600 students. This was done because little or no information was available regarding a student's ability other than current grade level. Under these conditions, some students may have been assigned forms either too hard or too easy. In these situations, no usable information would have been obtained. This loss of information, however, was not serious because of the large number of students assigned any one form, thereby assuring that the 200 minimum was achieved for each item.

Students involved in the calibration process ranged from Grades 3 to 12 and were drawn from all geographical areas of the United States including Hawaii, Ohio, Louisiana, Virginia, and California. Principal ethnic minority groups were included in the sample (Black, Mexican-American, Asian-American, and American Indian). Twenty DoDDS schools participated in the calibration. Also, various ability groups including Mentally Gifted Minors and the Educationally Handicapped or Learning Disabled were part of the overall calibration sample. Across all forms within the three content areas, some 50,000 students were administered calibration forms. In most cases (over 85 percent), each student took a form within each content area. This was desirable in order to subsequently look at student performance across content areas. Testing took place in fall, 1978.

Item Calibration

The fifth major step in the development of each item bank was the actual calibration of items. Prior to the calibration process, machine-readable answer sheets were electronically scanned and transferred to magnetic tape. This tape was subjected to a program designed to clean out all invalid answer sheets. This clean student-response tape was then read into the calibration programs. This process required two computer programs: FORCAL, which calibrates items within forms, and EQUATE, which links items across forms. FORCAL, prior to calibration, identifies both inappropriate students and inappropriate items using two different goodness-of-fit criteria. Responses of examinees were eliminated if forms were assigned inappropriately and either guessing or random responses occurred. Items were discarded if their response curve did not fit the Rasch model because of some bias in the item, ambiguity, or miskeying. All decisions regarding the deletion of items or students from the calibration process were made using the goodness-of-fit statistical procedures.

The second program, EQUATE, using item calibration values determined by FORCAL, provides the item calibrations across forms within a content area. This program determines these values by considering all two-item sets across all forms. After all items within a content area were calibrated and tested for goodness-of-fit, a rank order continuum based on the items calibrated values was developed. Following this ordering and the identification of multiple items having similar values, curriculum specialists were again brought in to attach content descriptors to subsets of items measuring the same skill. These descriptors, along with the corresponding item values, were then placed together in order to form the calibrated skills continuum needed for the generation of various reports for individual and groups of students.

Those DoDDS schools which participated in the calibration process received an individual student report for students tested for each subject area, a list of school means for each subject and the mean score for each grade and subject tested for the entire calibration sample. The Interpretative Guide for the Fall 1978 Calibrated Tests and A Glossary to the Abbreviated Skill Descriptors Used in Student Reports explaining the student report and the terms used in it were also provided.

Part 2

Characteristics of the Basic Skills Assessment Tests

This section presents the results of the item calibrations and analysis of test form data. These analyses include discussion of the item characteristics, test validity, and reliability for each of the forms used in the Spring, 1980 assessment.

Item Characteristics

The complete set of data used to make decisions about item quality for the Basic Skills Assessment Tests is presented in Appendix 3. This section presents a sample item characteristic table for Reading, grade 3, and discusses how to read the table as well as what decision rules were used in reviewing test items.

Table 4 - "Item Characteristic Data from FORCAL Item Analyses," displays the item analysis data for one test, Reading, grade 3. The table has three sections, each of which is reviewed in order to ascertain the quality of particular items: Item Characteristic Curve, Departure from Item Characteristic Curve, and Item Fit Statistics. The first section of the table, Item Characteristic Curve, displays the conventional difficulty values (p. values) for each test item. There are six difficulty values reported for each item, under the headings, "1st Group," "2nd Group," etc. These groups represent the student sample broken up into six "ability" groups, from the students scoring lowest on the test (1st group) to those scoring highest (6th group). Reading the Item Characteristic Curve data for item one, it can be seen that, of the students scoring lowest on the entire test, 85% answered the item correctly; in the highest scoring group 97% got the item right. Interestingly, for item one, the third group, which scored better on the entire test than did group two, found the item more difficult; 92% of group three answered the item correctly, whereas 93% of the second group got this item right. Reading across this first section, it can be seen that this is a relatively easy item, with a difficulty value ranging from 85% correct for the lowest group to 97% correct for the highest, and that for the majority of the students the probability of passing the item was .93.

The second section of the table is labeled "Departure from Expected ICC." This label indicates that the table is displaying the amount of deviation that the item curve, whose values are displayed in the first section, has from a model item characteristic curve (ICC). Turning again

TABLE 4

Sample Table: Item Characteristic Data from FORCAL Item Analyses

Reading, Grade 3

		ITEM CHARACTERISTIC CURVE						DEPARTURE FROM EXPECTED ICC						ITEM FIT STATISTICS					
SEQ NUM	ITEM NAME	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	LOGIT BIAS	BETWN TTEST	TOTAL TTEST	DFG FRDM	DISC INDX	POINT BISER
1	1997	0.85	0.93	0.97	0.94	0.97	0.97	0.07	0.03	-0.02	-0.01	-0.00	-0.01	0.00	14.19	-3.44	2225	0.71	0.16
2	1998	0.72	0.87	0.89	0.93	0.93	0.95	0.05	0.03	0.00	0.00	-0.02	-0.01	0.00	10.20	-3.66	3305	0.81	0.25
3	1999	0.76	0.87	0.91	0.94	0.96	0.98	0.03	0.01	-0.00	-0.00	0.00	0.00	0.00	2.67	-4.65	2825	0.91	0.26
4	270	0.51	0.75	0.86	0.92	0.94	0.97	-0.06	-0.01	0.03	0.03	0.02	0.03	0.00	15.75	-8.72	4335	1.22	0.43
5	519	0.48	0.73	0.82	0.89	0.93	0.97	-0.05	-0.00	0.01	0.02	0.02	0.03	0.00	13.58	-8.49	4819	1.19	0.43
6	1096	0.72	0.90	0.94	0.95	0.96	0.98	-0.02	0.03	0.02	0.01	-0.01	0.01	0.00	7.92	-7.01	2735	1.04	0.33
7	521	0.21	0.37	0.43	0.54	0.60	0.67	0.04	0.05	0.01	0.01	-0.03	-0.04	0.00	11.64	-9.44	8756	0.80	0.31
8	522	0.72	0.92	0.96	0.98	0.96	0.98	-0.05	0.02	0.03	0.02	0.01	0.00	0.00	15.17	-7.96	2345	1.17	0.36
9	523	0.45	0.70	0.75	0.81	0.85	0.86	0.03	0.07	0.02	0.00	-0.01	-0.04	0.00	13.49	-3.78	5973	0.83	0.32
10	524	0.72	0.89	0.92	0.94	0.96	0.95	0.02	0.04	0.01	0.00	0.00	-0.02	0.00	9.81	-5.25	3041	0.87	0.28
11	1536	0.60	0.83	0.87	0.93	0.95	0.97	-0.03	0.02	0.01	0.02	0.01	0.01	0.00	8.39	-6.96	3791	1.10	0.37
12	525	0.29	0.35	0.42	0.51	0.59	0.64	0.12	0.04	0.00	-0.02	-0.04	-0.06	0.00	24.39	-6.72	8786	0.59	0.24
13	526	0.25	0.41	0.54	0.66	0.74	0.82	0.00	-0.02	-0.00	0.01	0.01	0.02	0.00	2.37	-9.82	7948	1.05	0.39
14	1097	0.52	0.73	0.82	0.89	0.95	0.96	-0.03	-0.01	0.00	0.02	0.03	0.02	0.00	10.44	-7.88	4662	1.13	0.41
15	56	0.32	0.55	0.70	0.82	0.92	0.95	-0.08	-0.05	-0.01	0.03	0.06	0.06	0.00	22.63	-11.82	6238	1.34	0.49
16	527	0.30	0.40	0.49	0.60	0.73	0.81	0.07	-0.01	-0.03	-0.03	0.01	0.03	0.00	13.31	-8.04	8104	0.91	0.34
17	1095	0.23	0.33	0.49	0.58	0.69	0.79	0.02	-0.03	0.01	-0.02	0.01	0.04	0.00	8.02	-11.16	8412	1.04	0.37
18	1098	0.34	0.52	0.59	0.67	0.72	0.76	0.07	0.07	0.02	-0.01	-0.04	-0.05	0.00	16.82	-3.77	7714	0.72	0.29
19	531	0.32	0.51	0.66	0.74	0.81	0.87	-0.00	-0.01	0.03	0.01	0.00	0.02	0.00	2.30	-7.85	7089	1.04	0.39
20	532	0.33	0.55	0.70	0.80	0.88	0.91	-0.05	-0.03	0.01	0.03	0.04	0.03	0.00	12.97	-9.77	6481	1.20	0.45
21	533	0.24	0.43	0.60	0.77	0.85	0.91	-0.07	-0.08	-0.02	0.05	0.06	0.07	0.00	23.01	-13.54	7199	1.36	0.49
22	1099	0.32	0.54	0.70	0.82	0.88	0.93	-0.06	-0.05	0.01	0.04	0.04	0.05	0.00	17.32	-10.70	6401	1.26	0.47
23	535	0.24	0.43	0.66	0.71	0.79	0.88	-0.04	-0.04	0.02	0.03	0.02	0.03	0.00	10.34	-11.15	7606	1.17	0.43
24	1128	0.41	0.65	0.81	0.88	0.94	0.95	-0.08	-0.04	0.03	0.04	0.05	0.03	0.00	19.87	-10.57	5253	1.29	0.48
25	1100	0.26	0.49	0.61	0.69	0.77	0.82	-0.01	0.02	0.03	0.00	0.01	0.00	0.00	2.15	-8.35	7621	1.02	0.38
26	1118	0.29	0.47	0.55	0.63	0.72	0.76	0.05	0.06	0.01	-0.02	-0.01	-0.03	0.00	12.21	-5.65	8020	0.79	0.31

SCORE RANGE	7-14	15-17	18-19	20-21	22-22	23-23
MEAN ABILITY	-0.28	0.58	1.05	1.50	1.90	2.24
MEAN Z-TEST	0.1	0.5	0.7	1.1	1.1	1.2
SD(Z-TEST)	4.5	2.8	1.4	2.2	2.7	3.8
GROUP COUNT	1218	1062	1140	1781	1231	1415

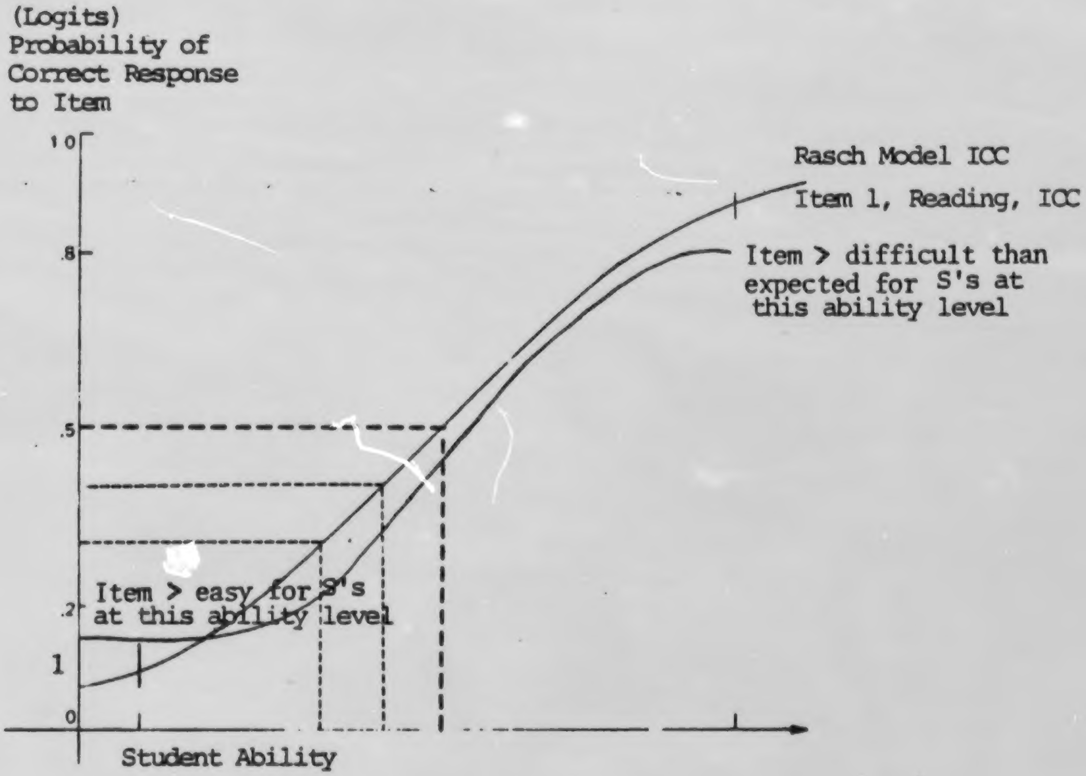
PLUS=TOO MANY RIGHT
MINUS=TOO MANY WRONG

LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
ASSOCIATED WITH ITEM MISFIT

26 ITEMS 7847 PERSONS WITH MEAN ABILITY = 1.80 AND STD. DEV. = 0.96

FIGURE 4

MODEL RASCH ITEM CHARACTERISTIC CURVE USED FOR FITTING ICC'S IN ITEM CALIBRATION



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to Item One on the Reading test, it can be seen that the amount of departure from the expected model curve is zero for the fifth group, negative for the third, fourth, and sixth groups, and positive for the first and second groups. The negative sign means that more students in these groups are missing the item than expected. Notice the note at the bottom of the table in this section indicates that a plus means more right answers for a group than expected, and a minus means more wrong answers than expected. The actual amount of departure from an expected, model item characteristic curve is determined by fitting the ICC for Item One, as defined by the plot points in the first section of the table (the item difficulty values for selected ability groups) to the Rasch model ICC. This Rasch model curve is displayed in Figure 4. When the ICC for Item One, Reading, grade 3 was plotted against the Rasch model curve, it approximated the shape of the curve displayed in Figure 4. The negative observations in the curve fitting analysis means that the Reading, Item One, curve fall under the Rasch curve for students in the high ability groups (students doing well on the entire test); the positive points are located above the model ICC. Note that Item One, these positive points are for the lowest scoring students. Zero departure from ICC points are located on the model Rasch ICC.

The third section of Table 4 displays the item fit statistics. The first column, Logit Bias, indicates the amount of measurement error associated with Item one. The number reported is an estimation of the amount of unexplained variation in the item score. For the first item, this unexplained variation is zero. Good items approach zero Logit Bias. The next two columns report t-statistics for determining whether the Reading, Item One ICC departure from the model ICC is significant. Significant *t's* indicate that there is a poor fit, or the Item One ICC is different from the model. Since *t* is generally significant at three or more for large samples, most of the t-fit statistics in these data will be significant due to large sample size alone, even when actual ICC deviations are small. For this reason, when large numbers of student have been tested, the t-test statistics may not be useful in identifying poor items. The Degrees of Freedom column indicates how many students were used in the calibration sample for a particular item.

Column five of the third section of Table 4 provides the discrimination indices for each of the test items. A discrimination index is a measure of the association between total test score and item score for each of the six ability groups used in the item analysis (see the first section of Table 4). An index approaching one indicates that the observed and expected item characteristic curves are close together at the reference points defined by the six ability groups. When the discrimination index is much less than one, then the observed ICC is flatter than expected and a particular item does not differentiate among the selected ability groups as well as do items with discrimination indices at one.

The last column displays the point biserial coefficients for each item. This point biserial is the total test score to item score for the entire sample. It tends to be lower than the point biserial correlation between items response and total test score. The point biserial has the added disadvantage of being influenced by how central the item is to the sample or how dispersed in ability the sample is. Because of its sensitivity to sample characteristics, it is difficult to establish how high the point biserial must be to be considered "good"; the TDC has established a rule of thumb of .20 point biserial, above which items are considered as functioning appropriately.

At the bottom of the table are several computer notes. Under the last section of the table, Item Fit Statistics, the note next to Logit Bias reads "Increment to calibrated student error associated with item misfit." These notes help explain the meaning of the statistics reported from the FORCAL item analysis data. FORCAL item analysis tables like the one displayed in this chapter are appended in Appendix 3 for each of the DoDDS Basic Skills Assessment tests.

Tables such as 4 and those in Appendix 3 are used to make item selection decisions. The procedures for identifying good or poor items is as follows: The first information reviewed is the item difficulty information in the first section of the table. This information shows whether items are working as expected for the group as a whole. Items that have high p. values for the low ability groups (groups one and two), and low ones for high ability groups (groups five and six), are certainly not behaving as expected. In general, it is expected that the p. values will be lowest for group one and increase across the ability levels to a high for group six. A brief review of section two of the table, Departure from ICC, substantiates information in the first section. Those parts of the table showing negative numbers flag items that are unexpectedly difficult for a particular group; positive numbers indicate unexpectedly "easy" items. Ideally, the departure statistics will be near zero for "good" items.

The final screen is the review of the item fit statistics, section three of our sample table. First the _t_ test statistics are reviewed. If the _t_ is not significant (below three), then the item is functioning well; the item ICC closely fits the Rasch model curve. If the _t_ is significant, it is an indication that the item may not be functioning as intended and that further review is necessary. Because of the t-statistics sensitivity to sample size, other statistics will almost always need to be reviewed in the item selection process.

The next statistics of interest are the discrimination indices and point biserial coefficients. A low discrimination index means that the item is not separating students at the given ability levels. The index for item one is .71. From the p. values table (section one, the ICC curve) it can be seen that most students do well on this item, regardless of ability group. This universally good performance on item one is responsible for the low discrimination index. Thus, a review of the point biserial coefficient is necessary. The point biserial is .16, a bit low. The item response data indicate that item one could be deleted from the test analyses. It is relatively easy for all students. It is harder than expected for the high-scoring students, easier than expected for low-scoring ones. The ICC curve for this item deviates from the Rasch model curve, as indicated by the t-statistics and discrimination index. The point biserial correlation is also low.

Any item considered for deletion must pass one final screen, that of curricular importance. As the Basic Skills Assessment tests were designed to have criterion-referenced interpretations, each item was selected to represent important curricular objectives. Item deletion must also take into consideration whether an important objective would not be assessed once the item was omitted. After reviewing the grade 3 Reading test, it was decided to retain item one, which assessess the phonetic skill of decoding single initial consonants.

Because the Basic Skills Assessment tests reflect priority curricular objectives, the inclusion of non-fitting items (that is, items that are either too easy or too difficult for selected ability groups) is not necessarily unwarranted. While these "poor" items do not provide information about how much more a student knows about the objective being tested, they do tell us that the student has mastered the objective. Item review processes must consider the ultimate purpose of the test as well as empirical item characteristics.

Test Reliability

Test reliability is a measure of the consistency with which a set of items measures a person over time or the precision of measurement. Traditionally, reliability is reported as th internal consistency of items measuring the same objectives (Kuder-Richardson) or the stability of group scores over time (test-retest). Sometimes reliability is reported in terms of the amount of error contained in the estimation of a student's score. All of these approaches to reporting reliability rely on group or sample statistics to arrive at an estimate of consistency, stability, or precision for a particular test form. Often these test form reliabilities are used to make estimates of score reliability for individual students, even though these statistics were determined by group rather than individual characteristics.

Since the Basic Skills Tests were developed to make decisions about individuals, the traditional reliability statistics are not appropriate.

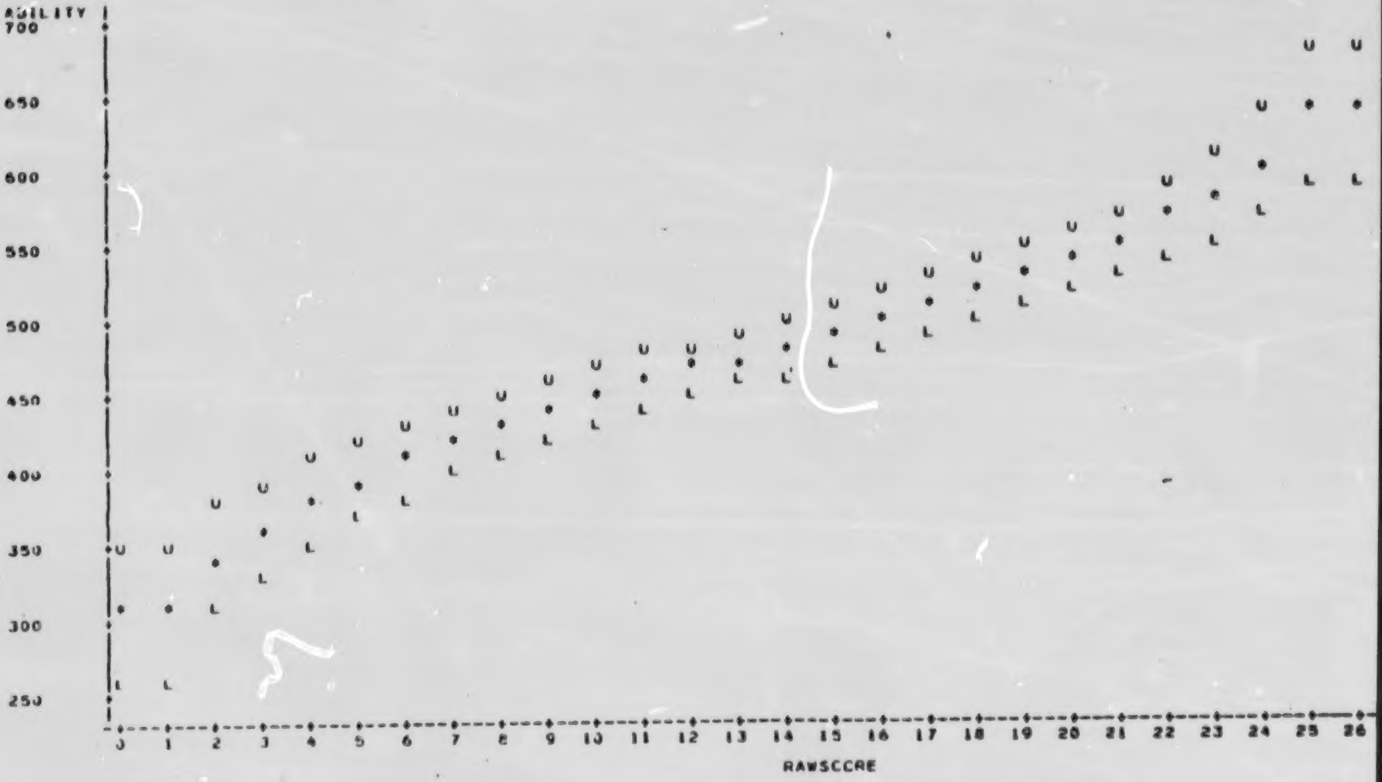
The analog of reliability and the standard error or measurement for tests developed according to the Rasch model is the test information curve (Hambleton, 1980). The reliability of interest for Rasch-developed tests is accuracy of estimation or precision of measurement at each individual's ability level for a particular test. This precision of measurement function is an information curve that provides an estimate of the error of measurement at each ability level. Its shape depends only on the difficulty of items included in the test and not on the distribution of abilities of the examinees.

The formula for information curves are available in Hambleton and Cook (1977). Information curves for each of the Basic Skills Assessment tests are reproduced in Figures 5-18. These functions describe the reliability, or precision of score, for each test score in terms at designated ability levels. For example, in order to ascertain the reliability of the Reading test at grade 3, you must refer to Figure 5. From the figure, we see that the test provides its best information about examinees in about the 460 ability range and at raw score 14; it is poorest for students in the 250-350 range and 575-625 range. For students who did extremely well or extremely poorly on the test, we will need other sources of information to ascertain the extent to which they have mastered the basic skills objectives. For the low students, this would mean looking at their performance on skills prerequisite to those included on the test; for high students, we would need to test them with more challenging items or more advanced skills.

While the precision of measurement differs by test and among ability levels within tests, some general observations about tests reliability may be made. All tests are most accurate for students in the middle ability levels and score ranges; this is true of the Rasch model and is also true in classical test theory. The Language Arts tests appear to provide the best estimates along the score and ability continuum followed by the Mathematics and the Reading tests. Precision appears to increase as students get older, a not unusual finding in light of the fact that developmental changes in younger populations make any one ability/performance estimate highly unstable.

FIGURE 5

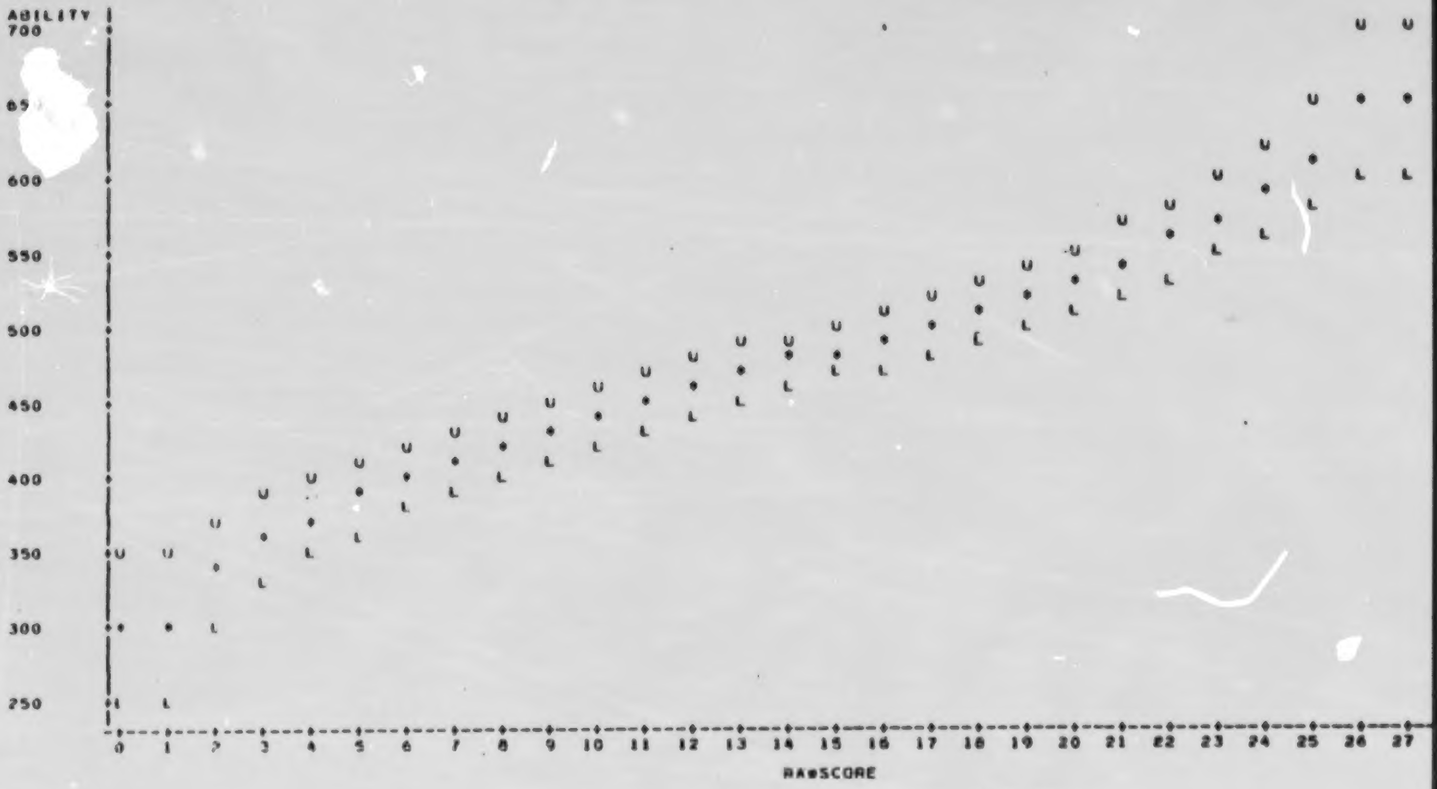
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: READING, GRADE 3



U = 1 standard error above
L = 1 standard error below

FIGURE 6

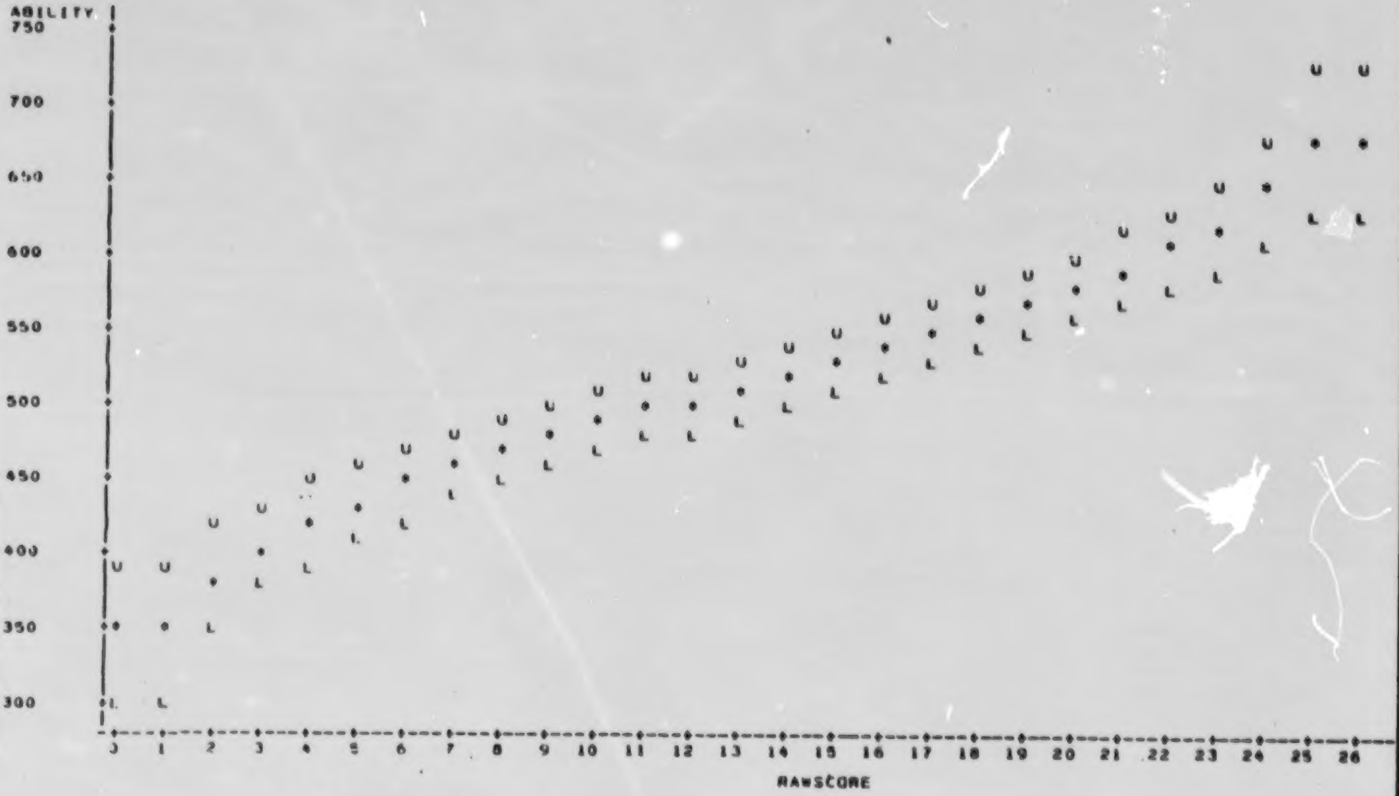
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: READING, GRADE 4



U = 1 standard error above
L = 1 standard error below

FIGURE 7

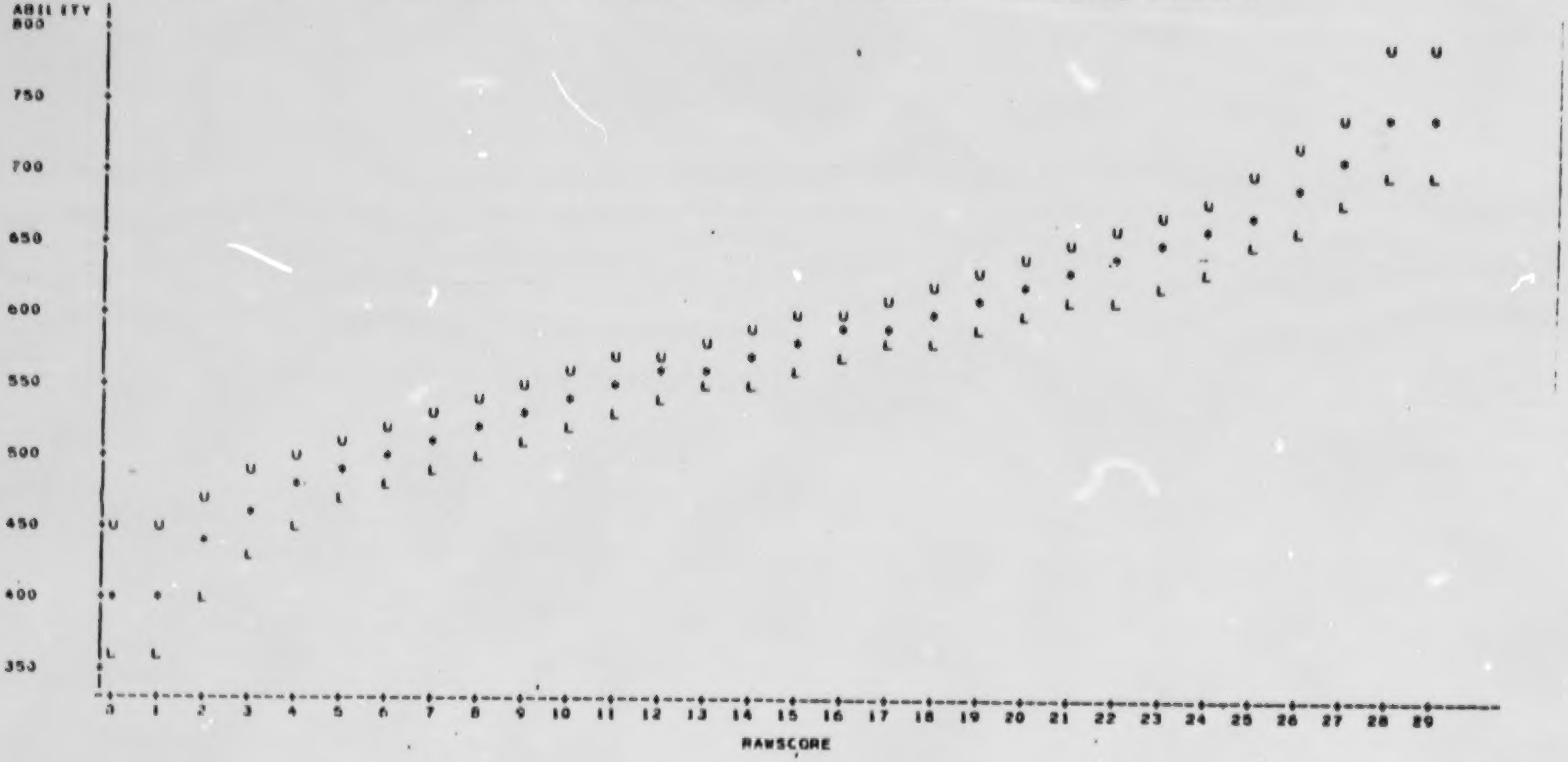
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: READING, GRADE 6



U = 1 standard error above
L+ = 1 standard error below

FIGURE 8

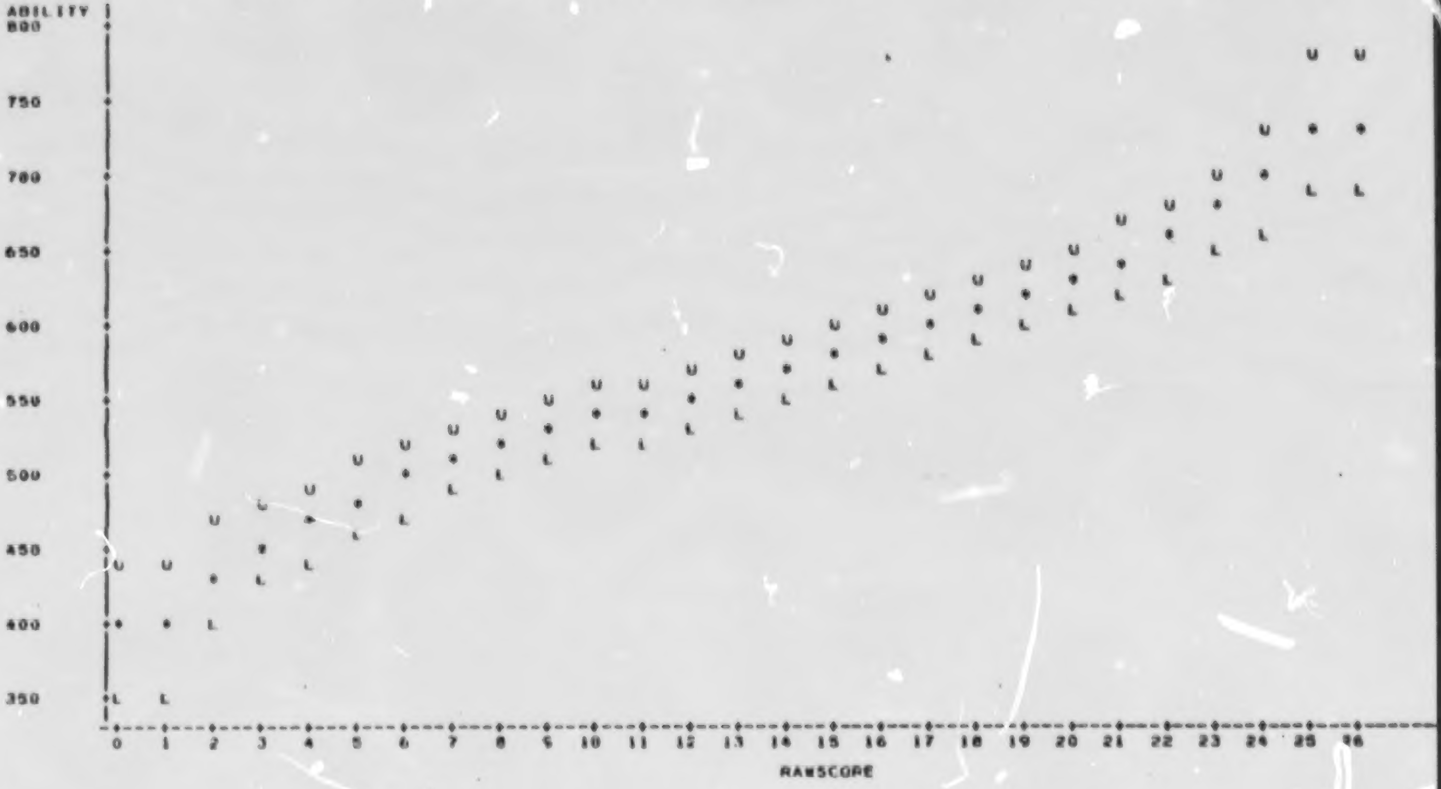
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: READING, GRADE 9



U = 1 standard error above
L = 1 standard error below

FIGURE 9

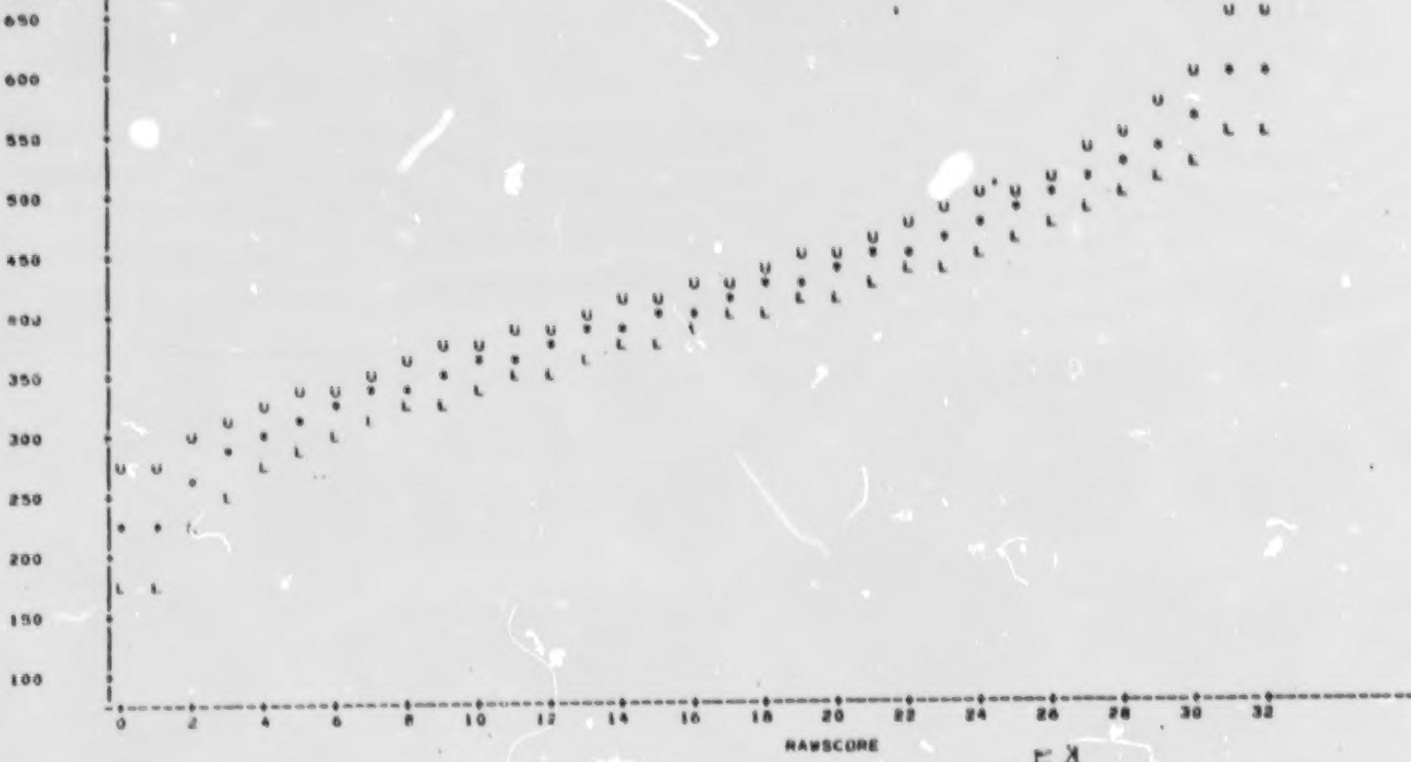
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: READING, GRADE 11



U = 1 standard error above
L = 1 standard error below

FIGURE 10

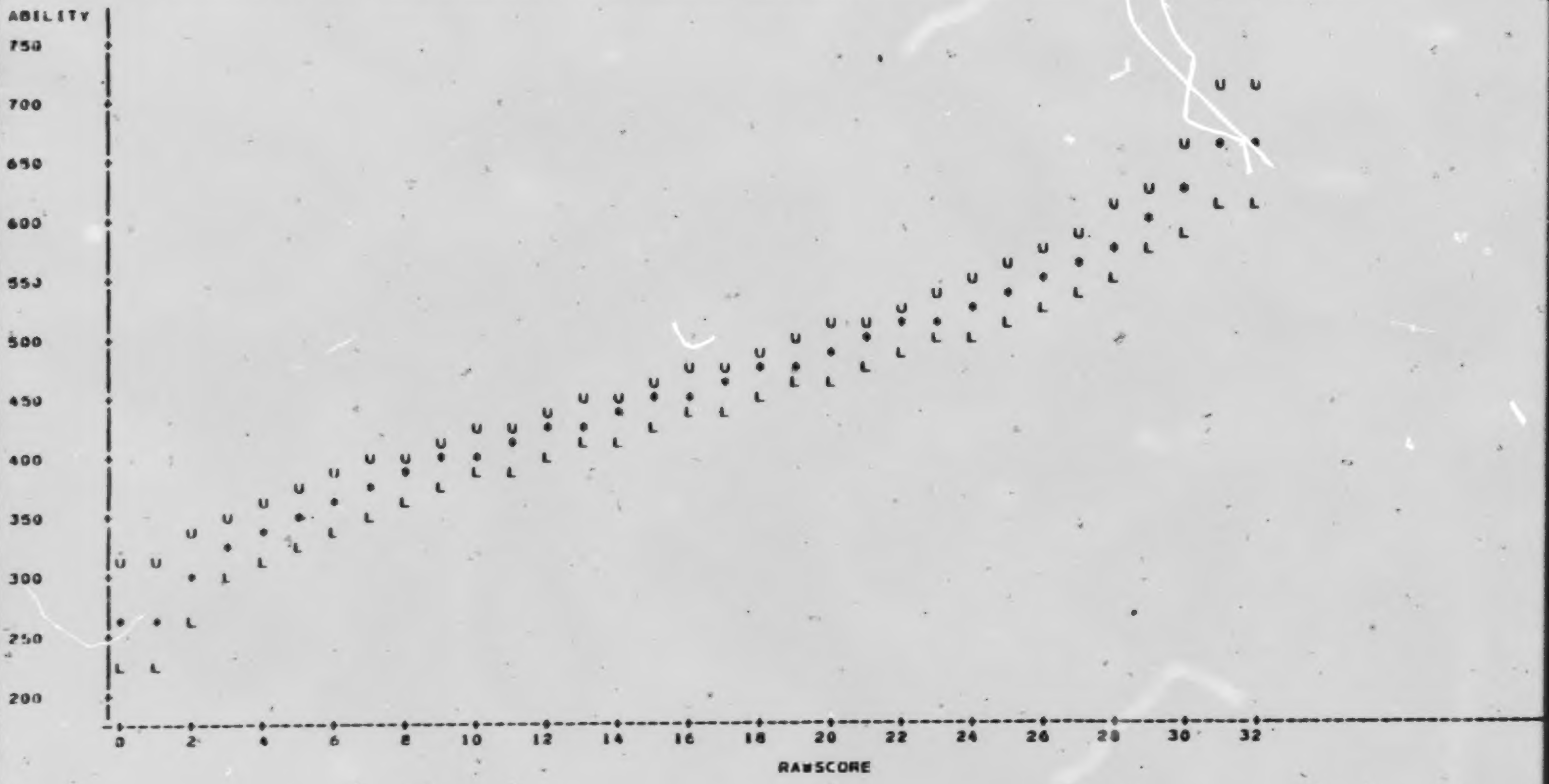
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: LANGUAGE ARTS, GRADE



U = 1 standard error above
L = 1 standard error below

FIGURE 11

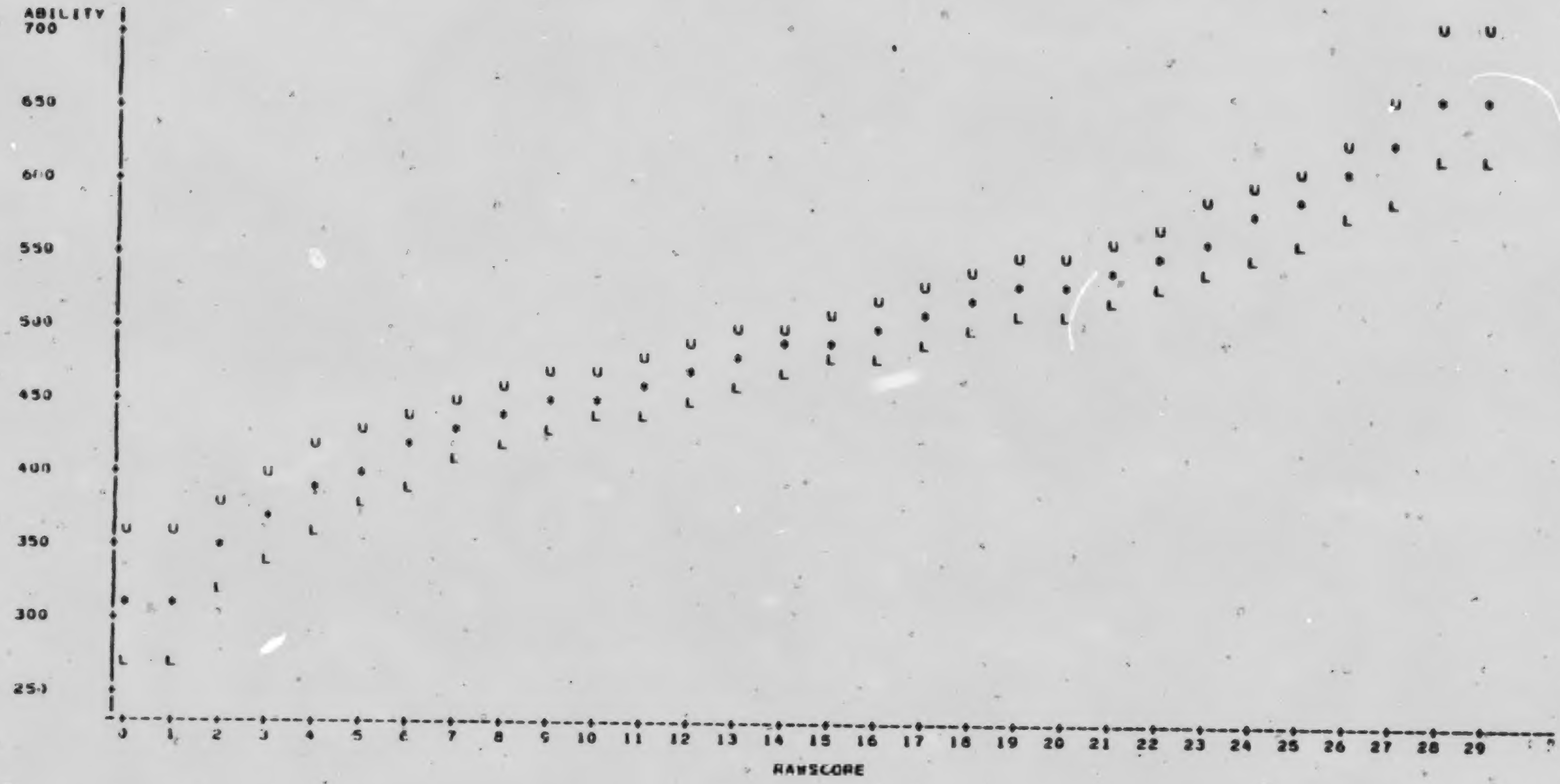
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: LANGUAGE ARTS, GRADE 4



= 1 standard error above
= I standard error below

FIGURE 12

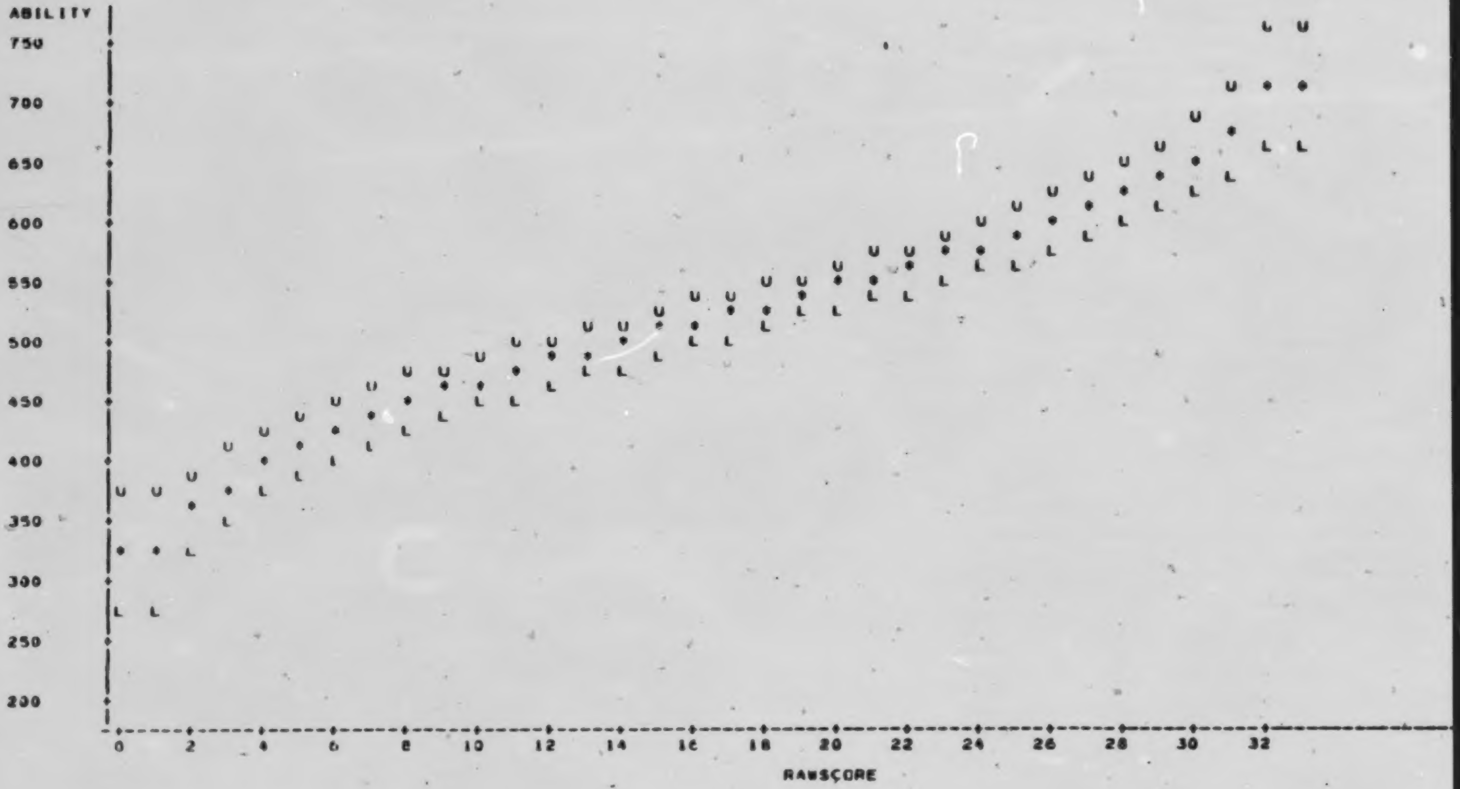
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: LANGUAGE ARTS, GRADE 6



U = 1 standard error above
L = 1 standard error below

FIGURE 13

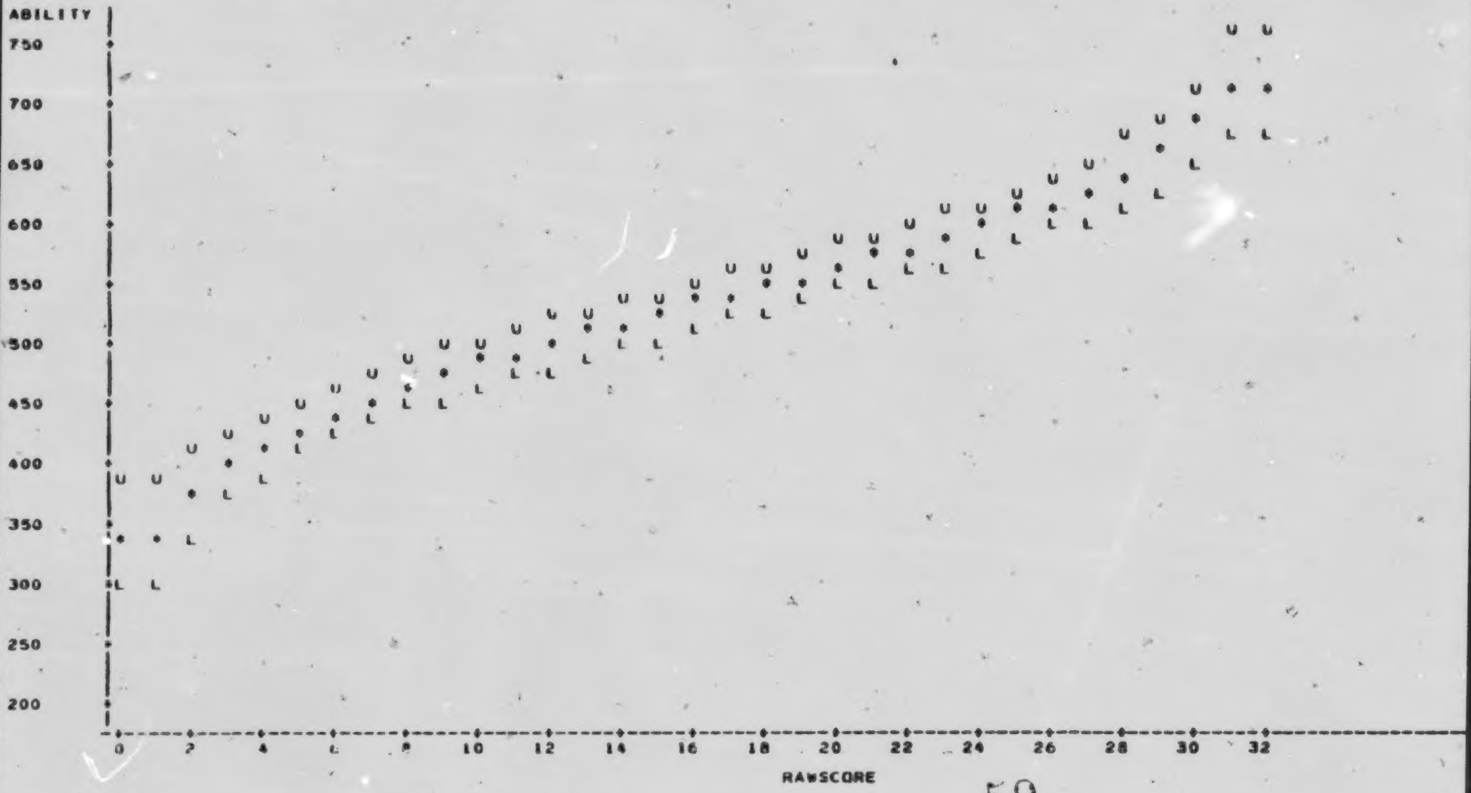
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: LANGUAGE ARTS, GRADE 9



U = 1 standard error above
L = 1 standard error below

FIGURE 14

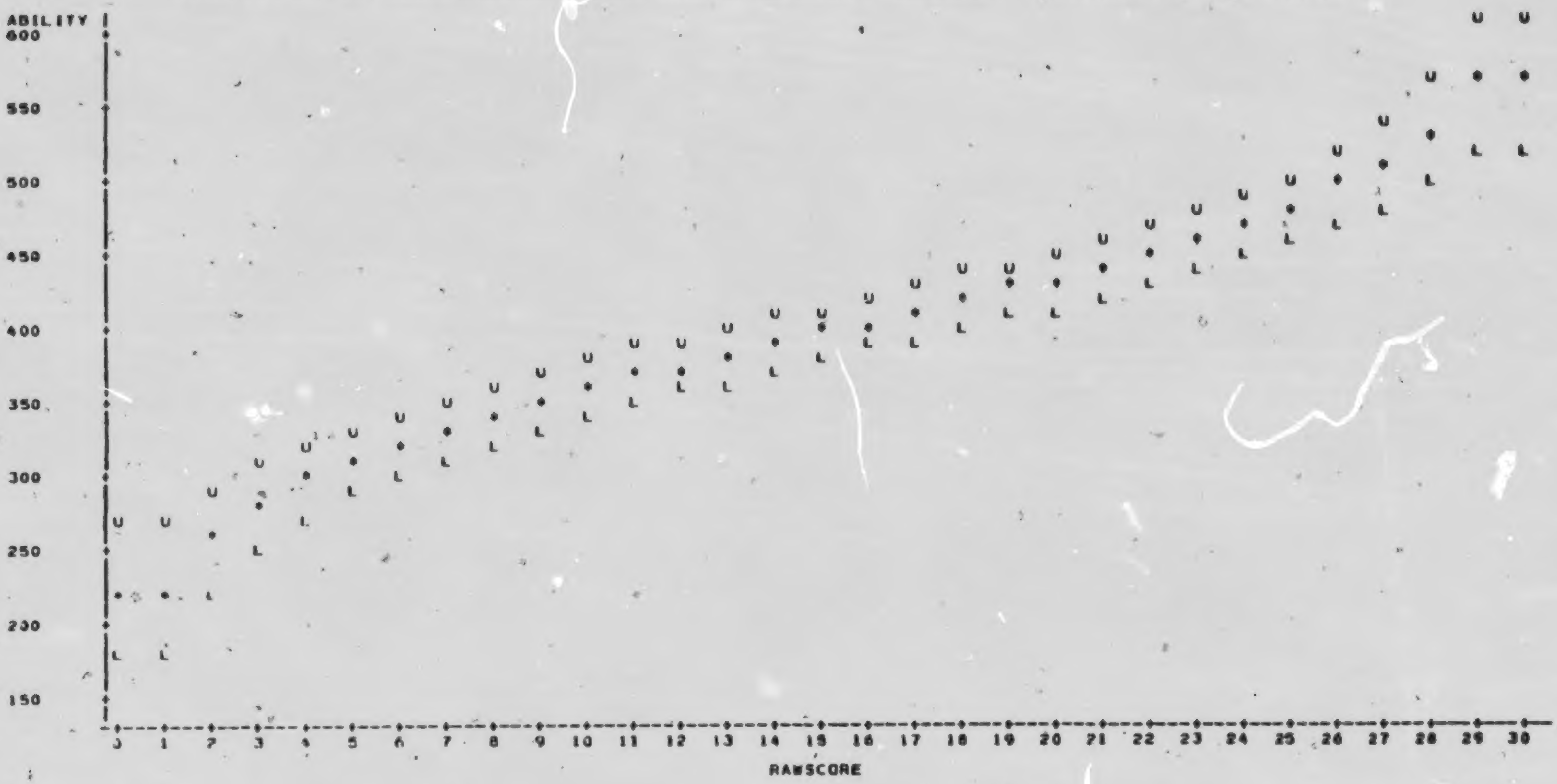
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: LANGUAGE ARTS, GRADE 11



U = 1 standard error above
L = 1 standard error below

FIGURE 15

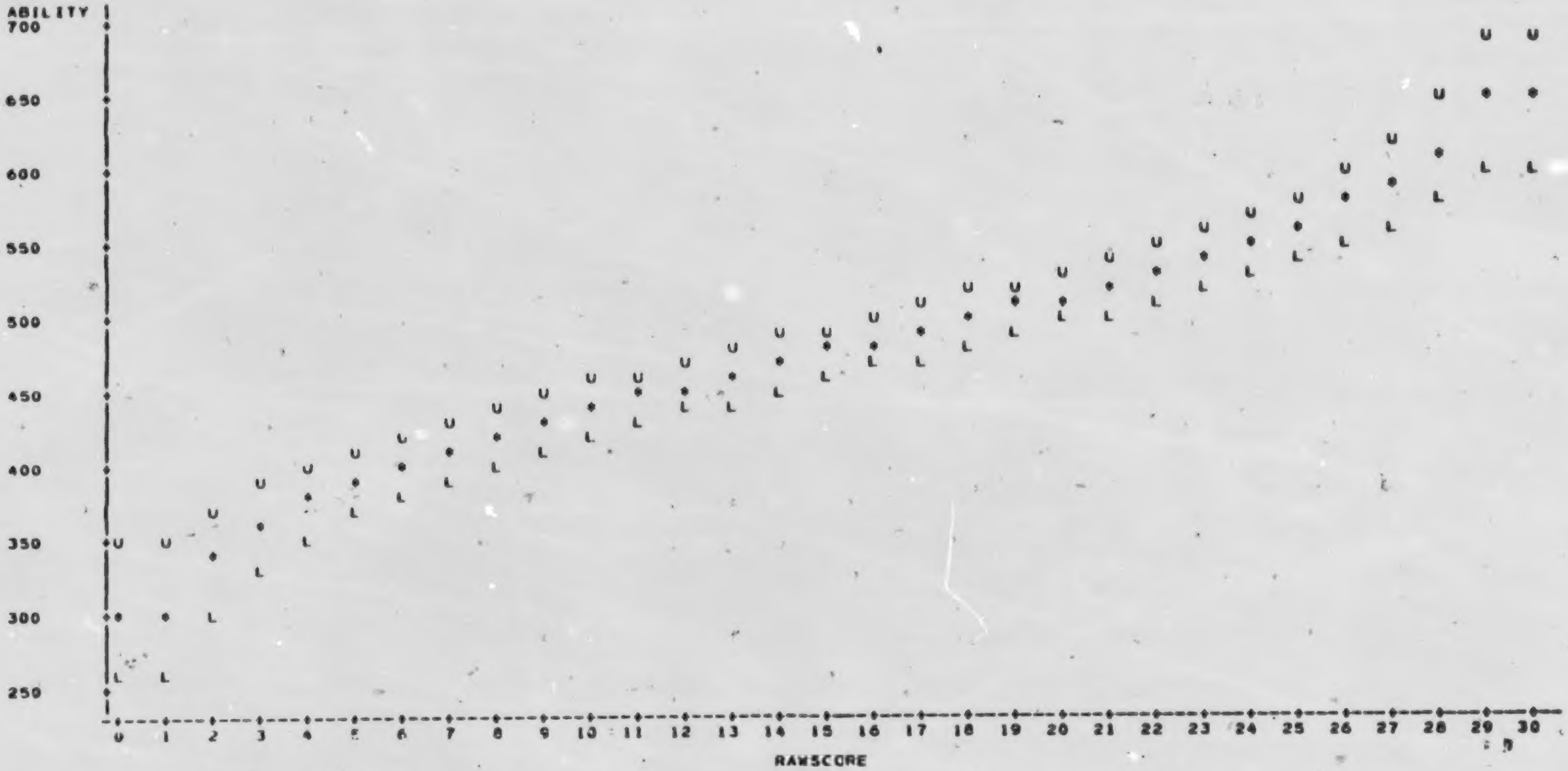
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: MATHEMATICS, GRADE 3



U = 1 standard error above
L = 1 standard error below

FIGURE 16

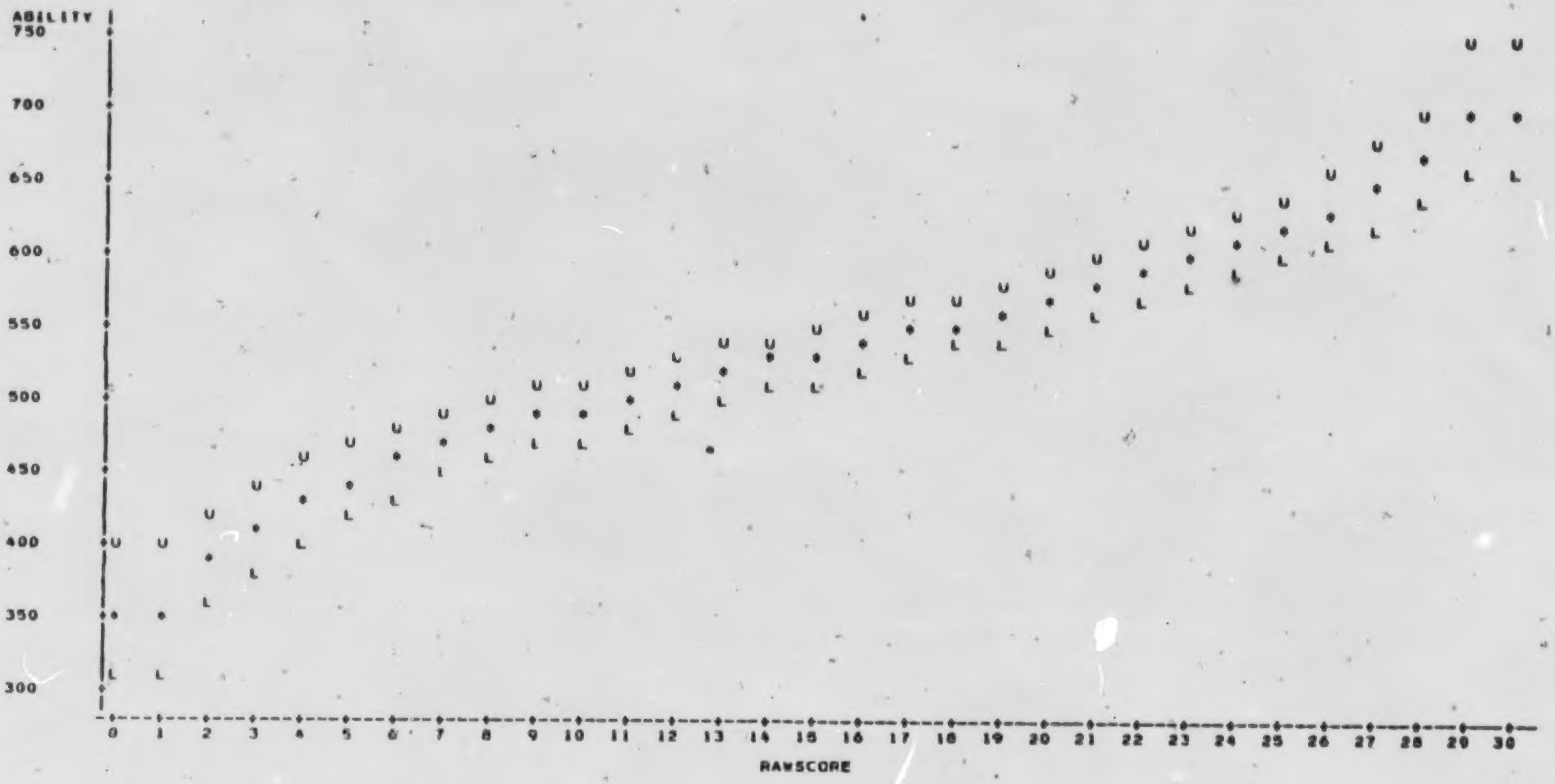
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: MATHEMATICS, GRADE 5



U = 1 standard error above
L = 1 standard error below

FIGURE 17

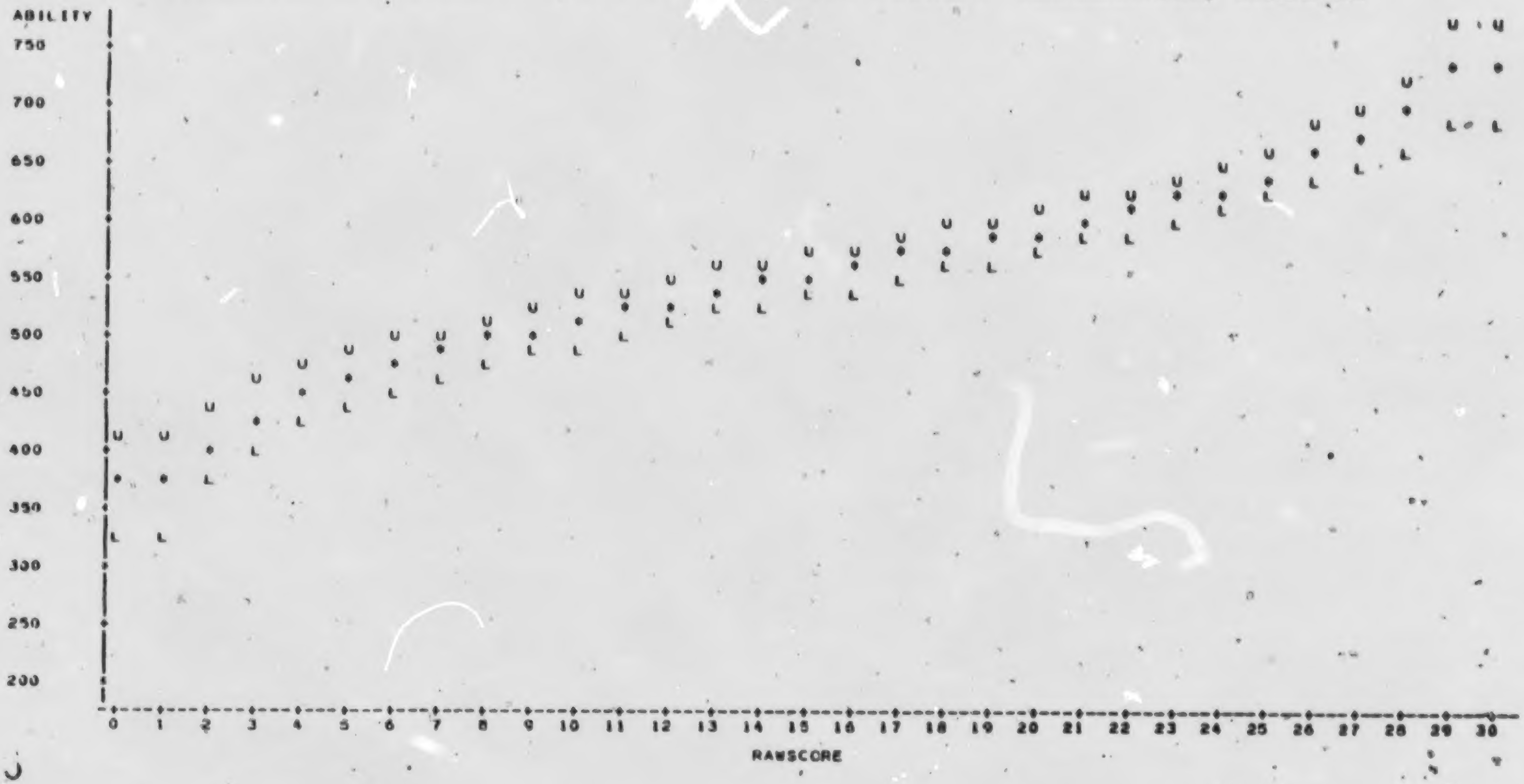
PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: MATHEMATICS, GRADE 7



U = 1 standard error above
L = 1 standard error below

FIGURE 18

PRECISION OF MEASUREMENT FOR RASCH ABILITY SCORES: MATHEMATICS, GRADE 11



U = 1 standard error above
L = 1 standard error below

The ultimate source of test reliability information, is of course, the accuracy of measurement for each individual student. Teachers, familiar with the typical performance of their students, should review individual test reports and compare these with other information they possess about the student's ability in a particular area. Their observations can then confirm or contradict the accuracy of a particular score for a particular individual.

Validity

Content

Test validity may be reported in various ways, depending on the purposes for which the test is to be used. When tests are used to make decisions about how well students have mastered particular objectives (objectives referenced decisions), then the test objectives and the items that measure them must be congruent. Expert opinion is often used to assess the extent to which a given set of items reflects the intentions of the test objectives. The item revision process established by DoDDS provided validation for test content in terms of curricular relevance and objective-item congruence.

Functional

A second measure of test validity is whether the test is functioning as intended. For tests developed by the Rasch model, a test measures what it says it does when the items elicit student responses congruent with predictions of the model. Rasch model predictions are based on the extent to which observed student responses are in line with expected performance for students at a given ability level. The statistic that summarizes the extent to which items that a student was supposed to answer correctly were actually answered correctly is the Quality of Measure Index (QMI). Although this index has no straightforward interpretation, high QMI indices mean that expected and observed test scores for students in given ability ranges are close; low QMI means that differences between expected and observed performance either were large for some students or that there were many discrepancies in expected and observed scores for the group.

Table 5 displays the mean QMI for each of the Basic Skills Assessment tests. All of the tests had an average QMI above 90; the range of the QMI's was largest for the language arts tests and narrowest for the reading tests.

The percentage of students in each QMI range is displayed in Table 6. A review of Table 5 indicates that the QMI is

TABLE 5

The Mean QMI and Range of QMI's for the Basic Skills Assessment Tests

READING

	Grade 3	4	6	9	11
Mean QMI	94	96	96	96	96
Range	65-100	62-100	69-100	65-100	65-100

LANGUAGE ARTS

	Grade 3	4	6	9	11
Mean QMI	94	95	97	89	95
Range	59-100	60-100	49-100	44-100	59-100

MATHEMATICS

	Grade 3	5	7	11
Mean QMI	96	97	96	95
Range	59-100	65-100	58-100	59-100

TABLE 6

Percentage of Students in Selected QMI Ranges for Basic Skills Assessment Tests, Spring 1980

READING

QMI Value	Grade 3	4	6	9	11
90-100	81.33	91.21	93.82	95.79	97.14
79-89	17.87	8.42	6.02	3.88	2.78
68-78	.71	.31	.15	.27	.06
44-67	.11	.07	0	.07	.02

LANGUAGE ARTS

QMI Value	Grade 3	4	6	9	11
90-100	86.71	91.06	95.45	89.47	89.68
79-89	12.30	5.03	4.45	7.60	9.84
68-78	.91	1.02	.06	2.86	.40
44-67	.08	.07	.02	.07	0

MATHEMATICS

QMI Value	Grade 3	5	7	11
90-100	94.20	96.76	95.08	86.77
79-89	5.54	3.11	4.75	11.51
68-78	.23	.10	.15	1.28
44-67	.06	.03	.01	.40

higher for students in grades 9-11 than for those in grades 3-4 for the reading test. For both the language arts and mathematics tests, the largest percentage of students with QMI's above 90 are in the middle grades (four and six or five and seven) than either primary or high school.

In interpreting the QMI, it must be remembered that this statistic is most appropriate for investigating the validity of a test for an individual, not a group. High QMI's mean that student performance was in the expected ranges across the set of test items. Low QMI's, however, have several alternative explanations. A low QMI may be the result of the students' expected versus observed item score, deviations being much larger than anticipated for a few items, or that there were small deviations for many items. Low QMI's do not necessarily mean that tests were inappropriate for students. They do indicate that the expectations for students are out of line with performance, for whatever reason. If the QMI for a test or individual is low, several strategies for improving measurement quality are appropriate. The test should be reviewed to determine if the skill has been taught. Individual score reports can be reviewed to identify aberrant student performance patterns such as "sleeping" (missing a few easy items then performing as expected on the rest of the test), guessing, or otherwise responding atypically. A review of item calibrations may also be indicated when the QMI is low.

Correlational

A third type of test validity has to do with what a particular test measures in common with other tests. Although usually referred to as construct validation, the information presented in this report regarding the overlap among the three Basic Skills Assessment tests is not sufficient to draw conclusions about the underlying constructs being tapped.

Table 7a-b displays the intercorrelations of the Basic Skills Assessment tests at selected grade levels. It would appear that when grade level is not a factor, language arts and mathematics tests are measuring more of the same skills or underlying abilities than are either reading and language arts or reading and mathematics. Interestingly, the correlation between reading and language arts is fairly high for the third grade but drops in subsequent grades. It may be that introductory reading and language arts skills are quite similar but become more specialized at the higher grades. The moderate correlations among the three tests provide some evidence that the tests do measure both skills common to all three and distinct skills as well. The nature of these similarities and differences remains to be investigated.

TABLE 7a

Intercorrelations Among Basic Skills Assessment Tests, Spring 1980: Reading, Language Arts and Mathematics Across Regions

	All Grades		Grade 3		Grade 11	
	Reading	Language	Reading	Language	Reading	Language
Language	.68		.71		.60	
Mathematics	.64	.74	.63	.61	.50	.51

TABLE 7b

Intercorrelations Between Basic Skills Assessment Tests, Spring 1980: Reading and Language Arts: Grades 4, 6 and 9

	Grade 4	Grade 6	Grade 9
	Reading	Reading	Reading
Language	.64	.56	.62

The Issue of Sex Bias

One concern of DoDDS staff was that items potentially biased against either females or males be identified. The bias issue is a validity issue: Does the test item assess the same skills for one subpopulation as it does for the other? Is there differential performance between females and males on a particular item that is attributable to the fact that the item is measuring different things in different subgroups? There are several methods for identifying potentially biased items. These methods are described briefly in this section.

The object of particular methodologies employed to substantiate suspicions that the test scores of some groups of students are systematically different from the scores of another is, either 1) to examine item behavior to identify those items for which there is a group by item interaction, or 2) to review properties of the whole test to determine if the test is measuring different skills or constructs for different groups of students. The methodologies of test bias surveyed by TDC staff included several item response methodologies: transformed item difficulty strategies, item discrimination indices, item characteristic curve approaches, X^2 analyses, and analysis of variance procedures.

Transformed Item Difficulties

A biased item under the transformed difficulty approach is one that is relatively more difficult for one group of students than another. The procedure for investigating item difficulty is twofold: first, item difficulty values are calculated for each group in the study and the values then converted to a normal deviate z score. A linear transformation of the z score, most commonly $Delta=4z+13$ (Angoff, 1975), is used to obtain a delta value, the magnitude of which is an indication of item difficulty. Next, the delta values, one for each group under investigation, are plotted on a bivariate graph, with items (a pair of delta values) depicted as single points. A line of best fit is plotted on the graph and positions of items (pairs of delta values) are examined for amount of deviation from the line. The larger the deviation, the more biased the item. This method is described in several sources (Rudner & Getsen, 1978; Echternacht, 1974; Hicks, Donlon and Wallmark, 1976).

Studies comparing the accuracy of transformed item difficulties with other methods (Rudner, 1977; Ironson & Subkoviak, 1979) have found it to be more accurate than the use of point biserial coefficients and somewhat less accurate than item characteristic or chi square methods.

Item Discrimination Methods

This technique considers an item biased if its relative ranking as a "best" or "worst" discriminating item changes between groups under investigation. The statistic used to rank item discrimination is the discrimination (point-biserial correlation) index. The Bronson-Subkoviak review indicates that this method, when compared with chi square, item characteristic curves, and transformed item difficulty, is relatively poor for detecting biased items (Ironson & Subkoviak, 1979).

Item Characteristic Curve Analysis

Item characteristic curves plot the probability of correctly answering an item as a function of "ability." One, two, or three parameter models may be chosen to describe the test data. Biased items are those for which the item characteristic curves of two groups are not the same. It is analogous in concept to the item difficulty transformation or item discrimination comparisons but because of the linear transformation employed before data are examined, the ICC method claims to be more sensitive to real as opposed to statistically-induced differences between groups.

Chi Square Analyses

Chi square methods (Scheuneman, 1975; Rudner, 1977) investigate the probabilities that distributions of responses of two subgroups will be similar. Groups are often compared within and between ability levels. In such cases, the procedure is often referred to as a "modified" chi square. Essentially what happens in this comparison process is that biased items are those for which the p-values for subgroups from the two populations differ within ability groups.

Analysis of Variance Techniques

The investigation of item bias with analysis of variance techniques (Angoff and Sharon, 1974; Cleary and Hilton, 1968) looks at the discrepancy between the item performance of members of different groups in order to determine if for any item one group performs well on the item while at the same time another performs poorly.

The bias analysis performed by the TDC was a modified form of item characteristic curve analysis. First, item difficulties were computed separately for males and females. These difficulties were then transformed into logits. A logit is the natural log odds that a person will succeed on an item, analogous to p. values. Logit values are obtained by substituting item p. values into the logit function equation:

$$L_n = [(1-p_1)/p_1]$$

These transformed item difficulties have the advantage of being on an equal interval scale. After logit item difficulties were obtained for males and females for each item, these items were plotted for each of the Basic Skills Assessment tests. The regression line of best fit was then computed for each of the tests and drawn on the scatterplots of item difficulties. Potentially biased items were identified by locating outlying items in the scatterplot.

Table 8 presents the results of the regression analyses for the 14 Basic Skills tests. The regression of female on male item difficulties is displayed in Figures 19 to 32. Logit item difficulties for females are located on the "x" axis; those for males along the "y." The note "4 obs. hidden" below the graphs indicates that some of the points were "on top" of each other and thus "hidden" from view.

Inspection of the scatterplots of female versus male item difficulties revealed eight outlying items. These items are described in Table 9. Review of each of these items did not reveal any obvious reasons why their difficulties were significant for boys and girls. Most studies of item bias have been unable to detect reasons for differential difficulties between the sexes (Ekstrom, 1979).

One of the reasons that so few potentially biased items were found in the Basic Skills Assessment tests is due to the fact that the TDC routinely reviews all items before they are added to the item bank. An editor determines if material included in the item portrays groups or sexes in a stereotypical or negative fashion. Items with potentially negative connotations for certain subgroups are revised or not included in the bank.

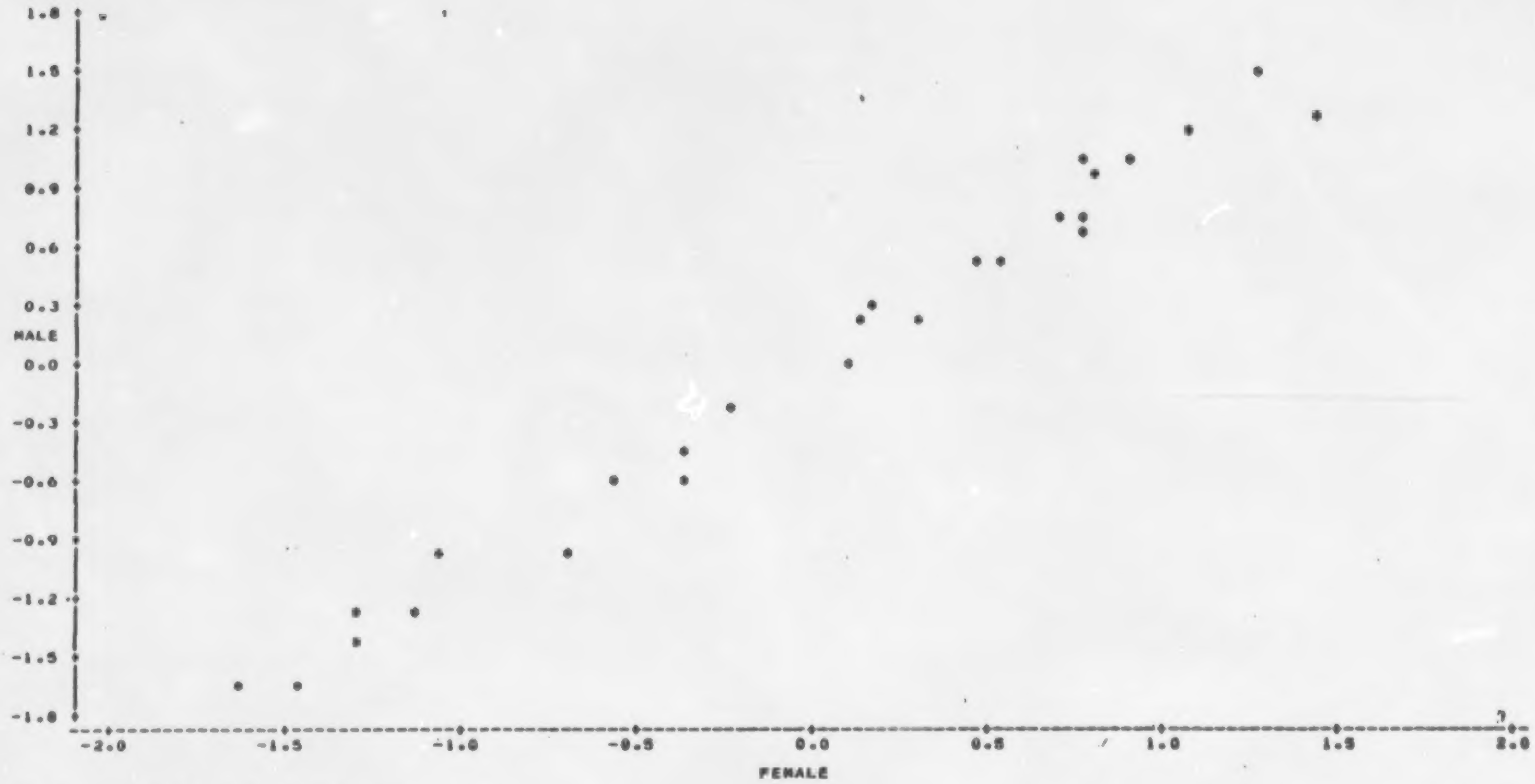
TABLE 8

Regression Analysis Results for Female v. Male Item Difficulties When Intercept = 0

Variable	B	Standard Error	F	R^2
READING				
Grade 3 Female	1.07	.03	1334	.98
Grade 4 Female	1.06	.03	1471	.98
Grade 6 Female	1.06	.05	424	.98
Grade 9 Female	1.05	.05	510	.95
Grade 11 Female	.93	.05	365	.94
LANGUAGE ARTS				
Grade 3 Female	1.10	.02	3084	.99
Grade 4 Female	1.14	.02	3631	.99
Grade 6 Female	1.15	.03	1248	.98
Grade 9 Female	1.10	.03	1593	.98
Grade 11 Female	1.06	.04	813	.96
MATHEMATICS				
Grade 3 Female	1.08	.04	579	.95
Grade 5 Female	1.16	.05	560	.95
Grade 7 Female	1.10	.04	952	.97
Grade 11 Female	1.06	.04	677	.96

FIGURE 19

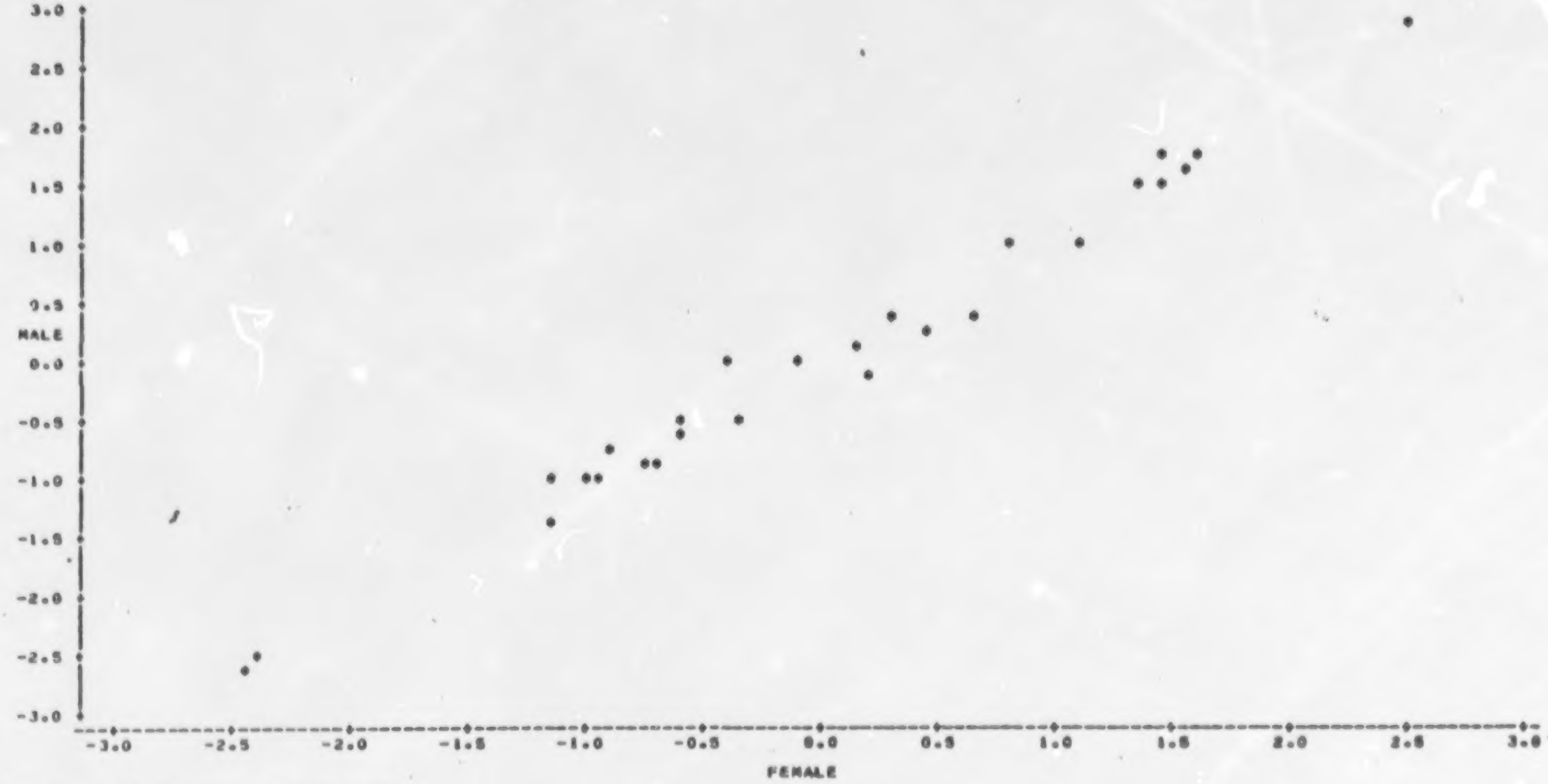
REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, READING, GRADE 3



NOTE: 2 OBS HAD MISSING VALUES

FIGURE 20

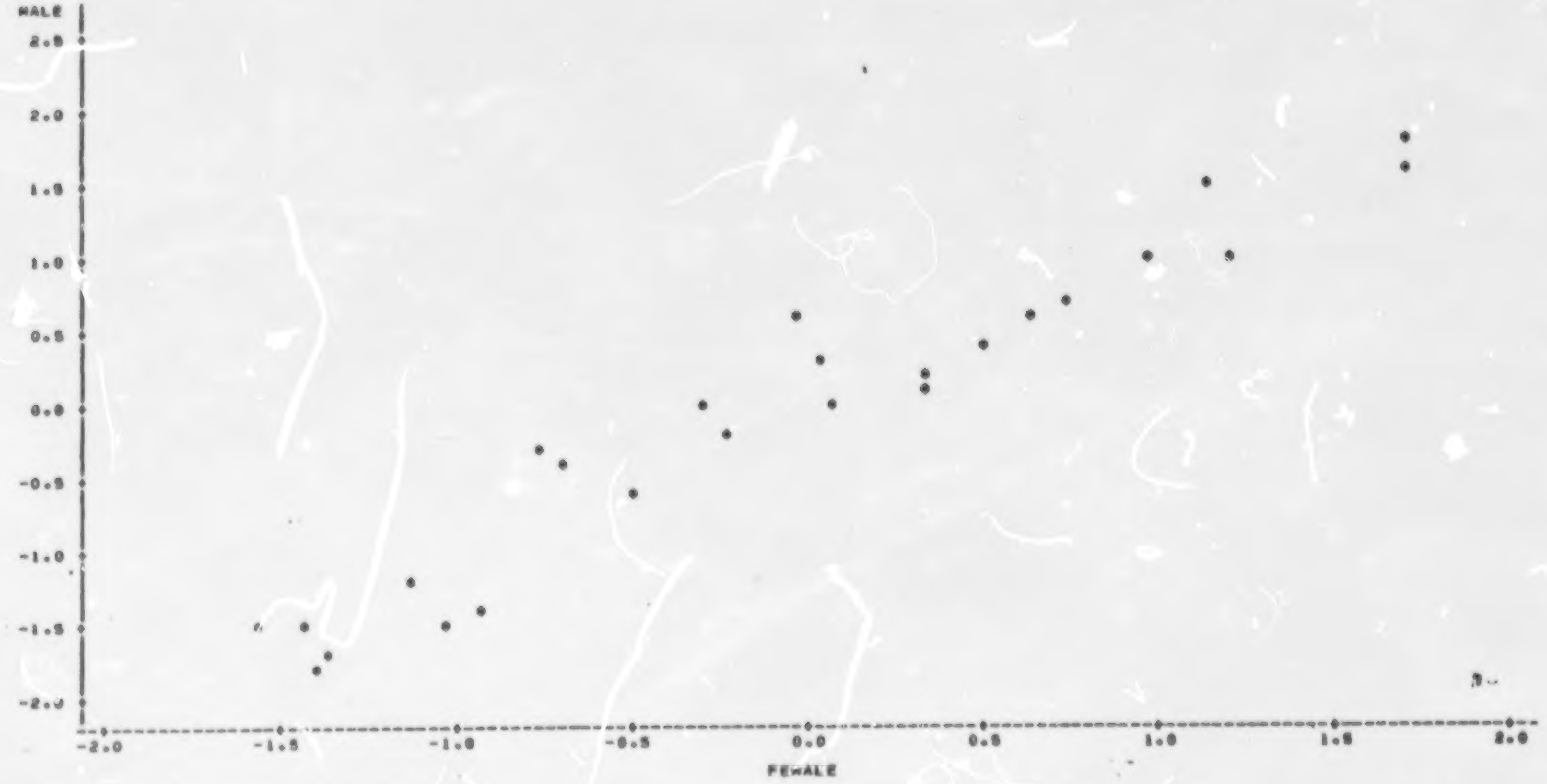
REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, READING, GRADE 4



NOTE: 2 OBS HAD MISSING VALUES

FIGURE 21

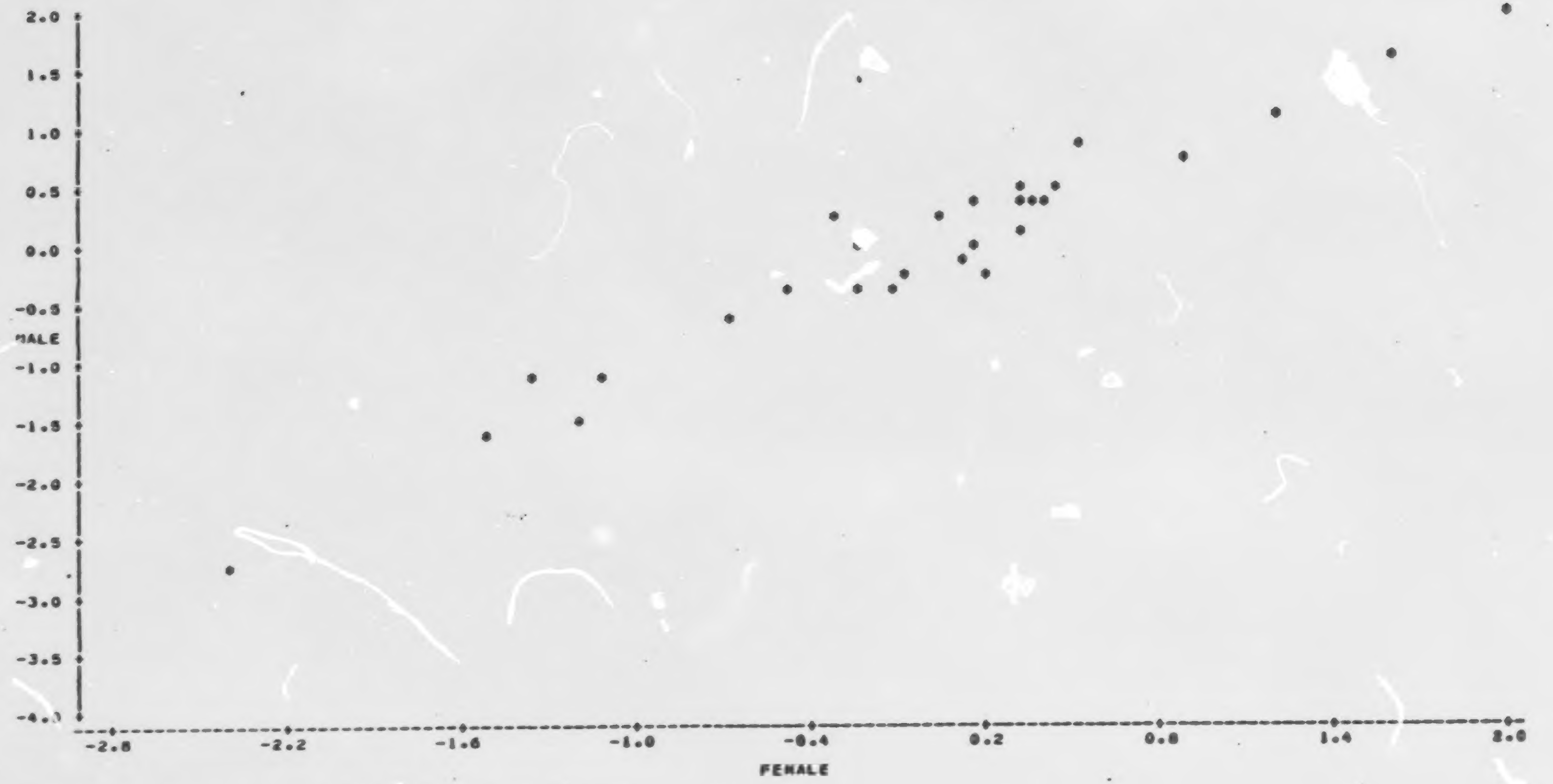
REGRESSION OF FEMALE ON MALE ITEM DIFFICULITIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, READING, GRADE 6



NOTE: 2 OBS HAD MISSING VALUES

FIGURE 22

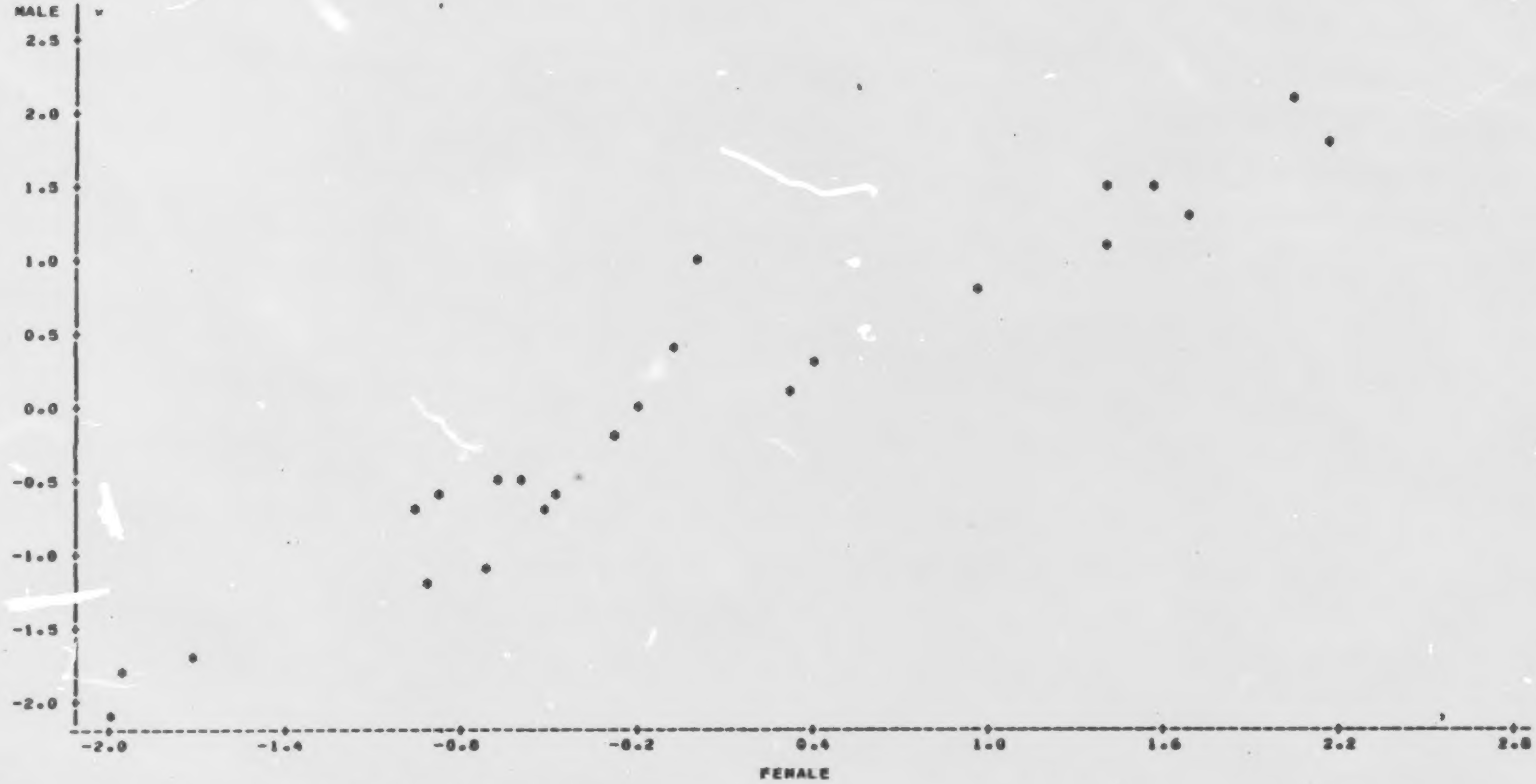
REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, READING, GRADE 9



NOTE: 2 OBS HAD MISSING VALUES 2 OBS HIDDEN

FIGURE 23

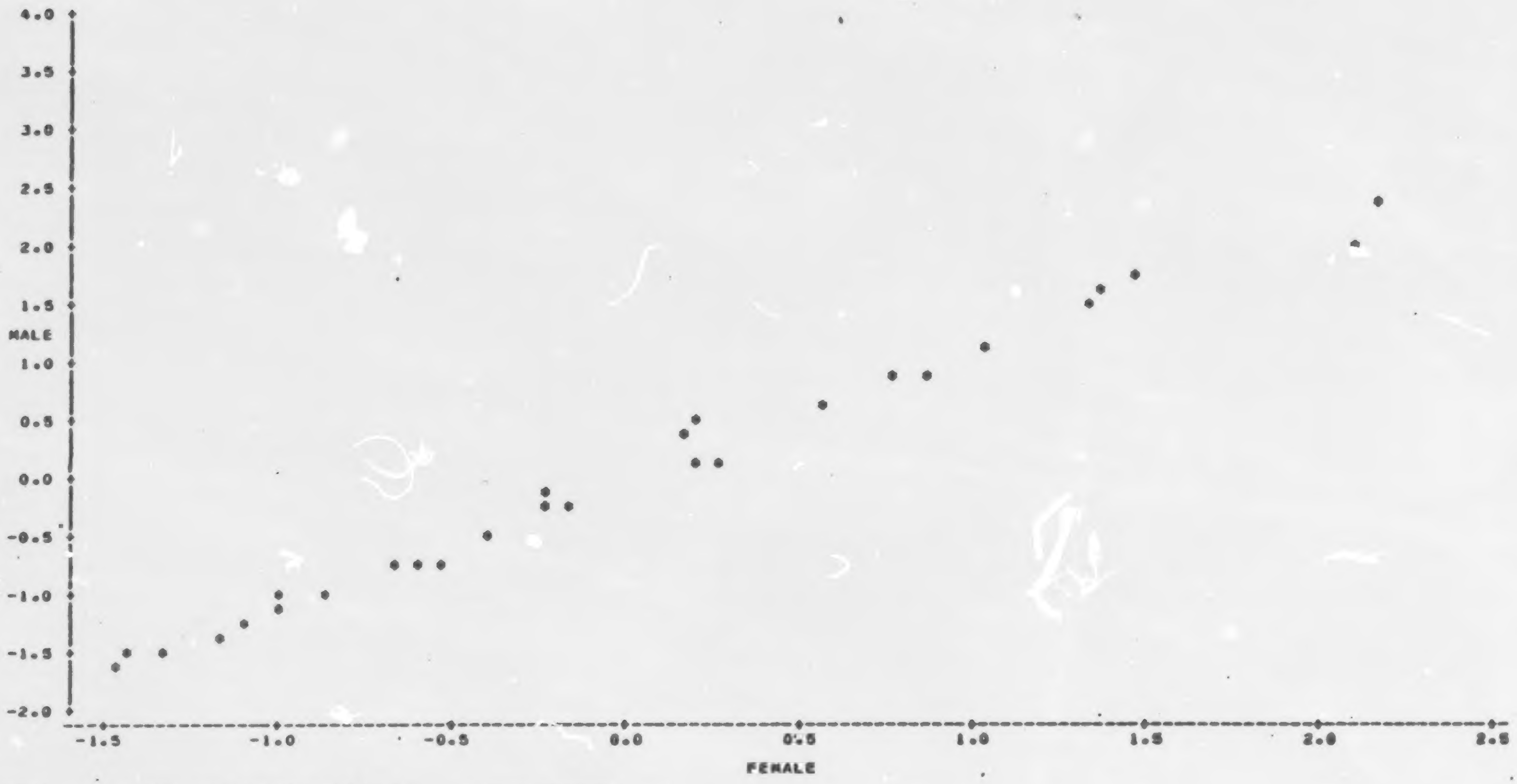
REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, READING, GRADE 11



NOTE: 4 OBS HAD MISSING VALUES 4 OBS HIDDEN

FIGURE 24

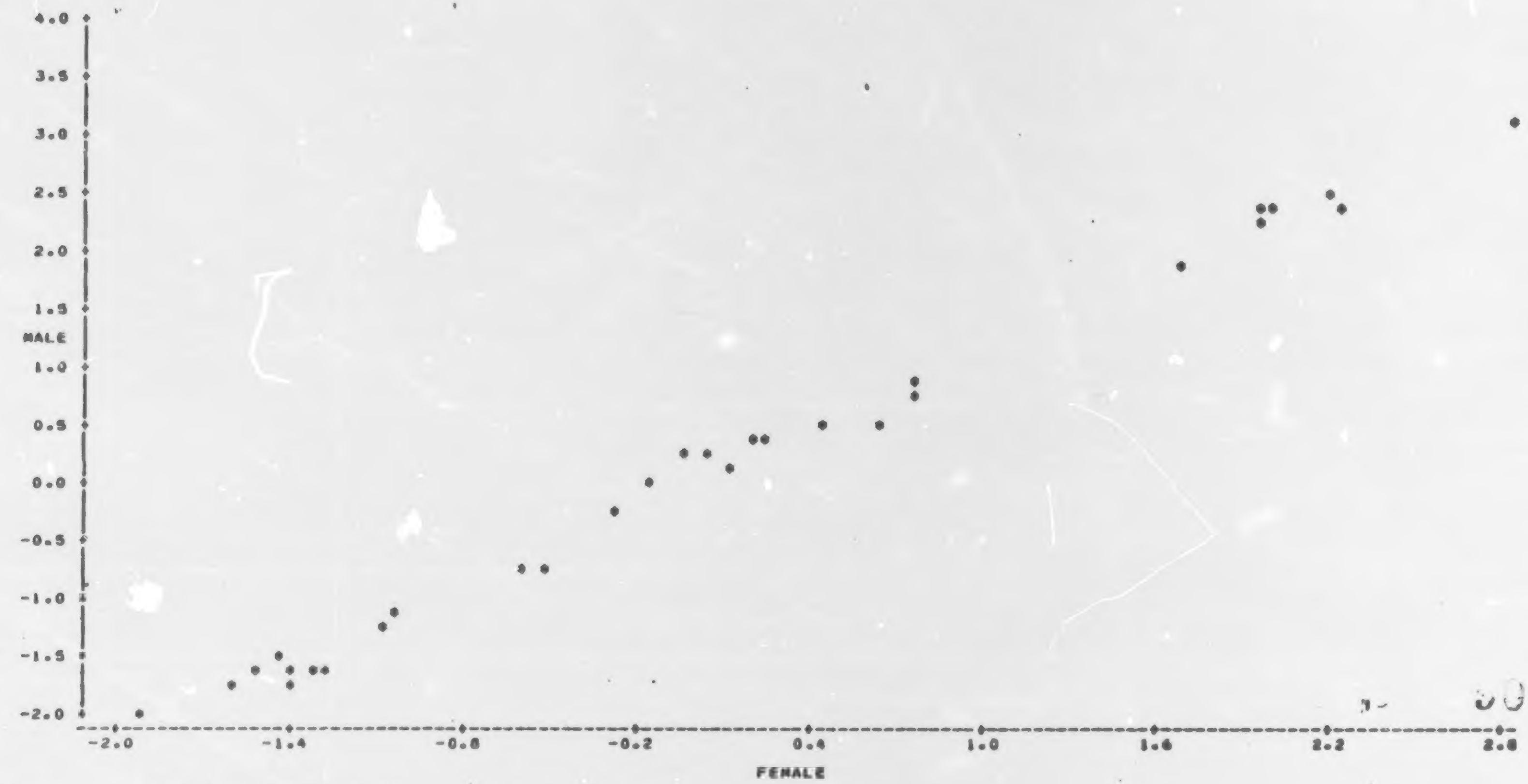
REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, LANGUAGE ARTS, GRADE 3



NOTE: 2 OBS HAD MISSING VALUES 6 OBS HIDDEN

FIGURE 25

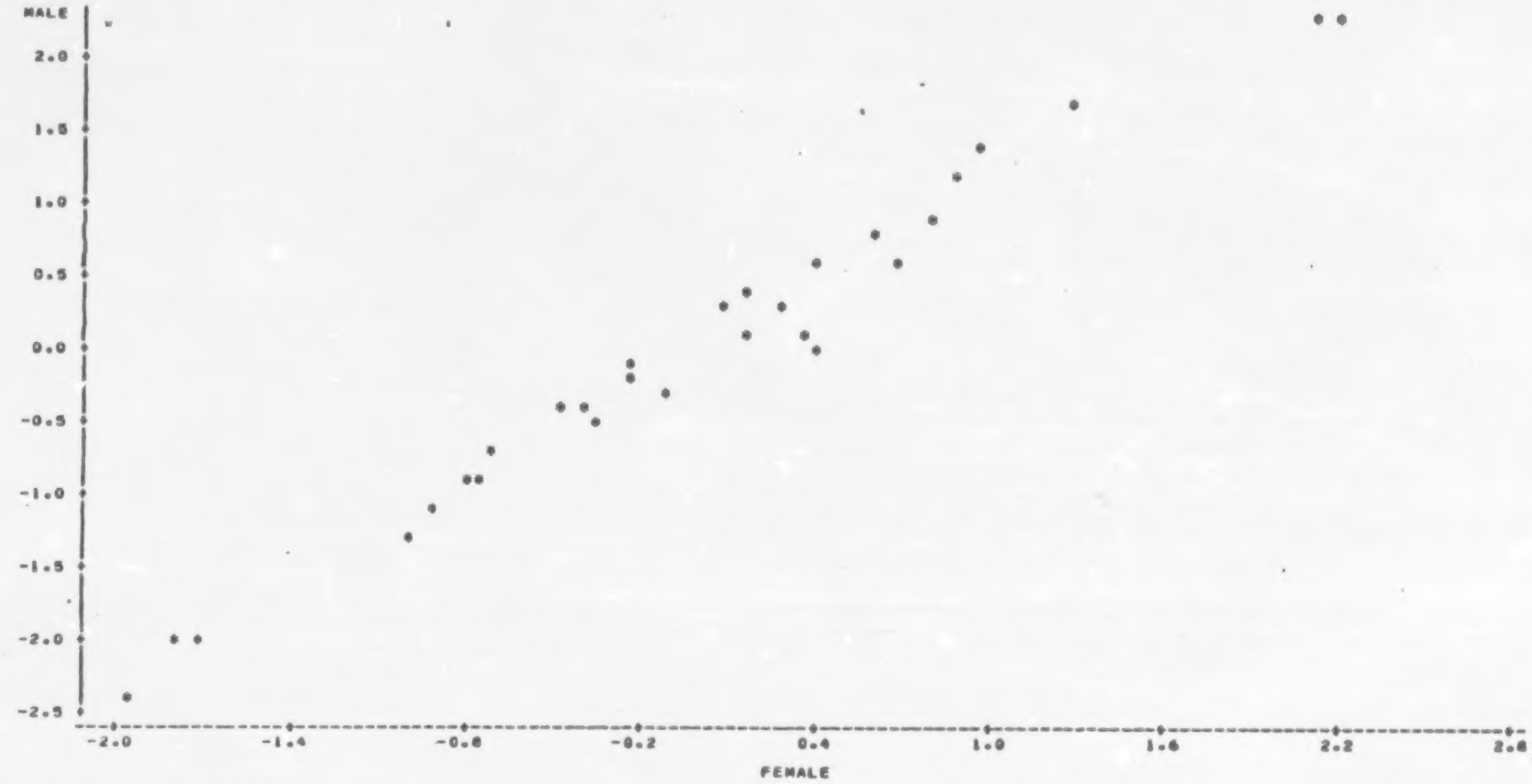
REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, LANGUAGE ARTS, GRADE 4



NOTE: 2 OBS HAD MISSING VALUES 4 OBS HIDDEN

FIGURE 26

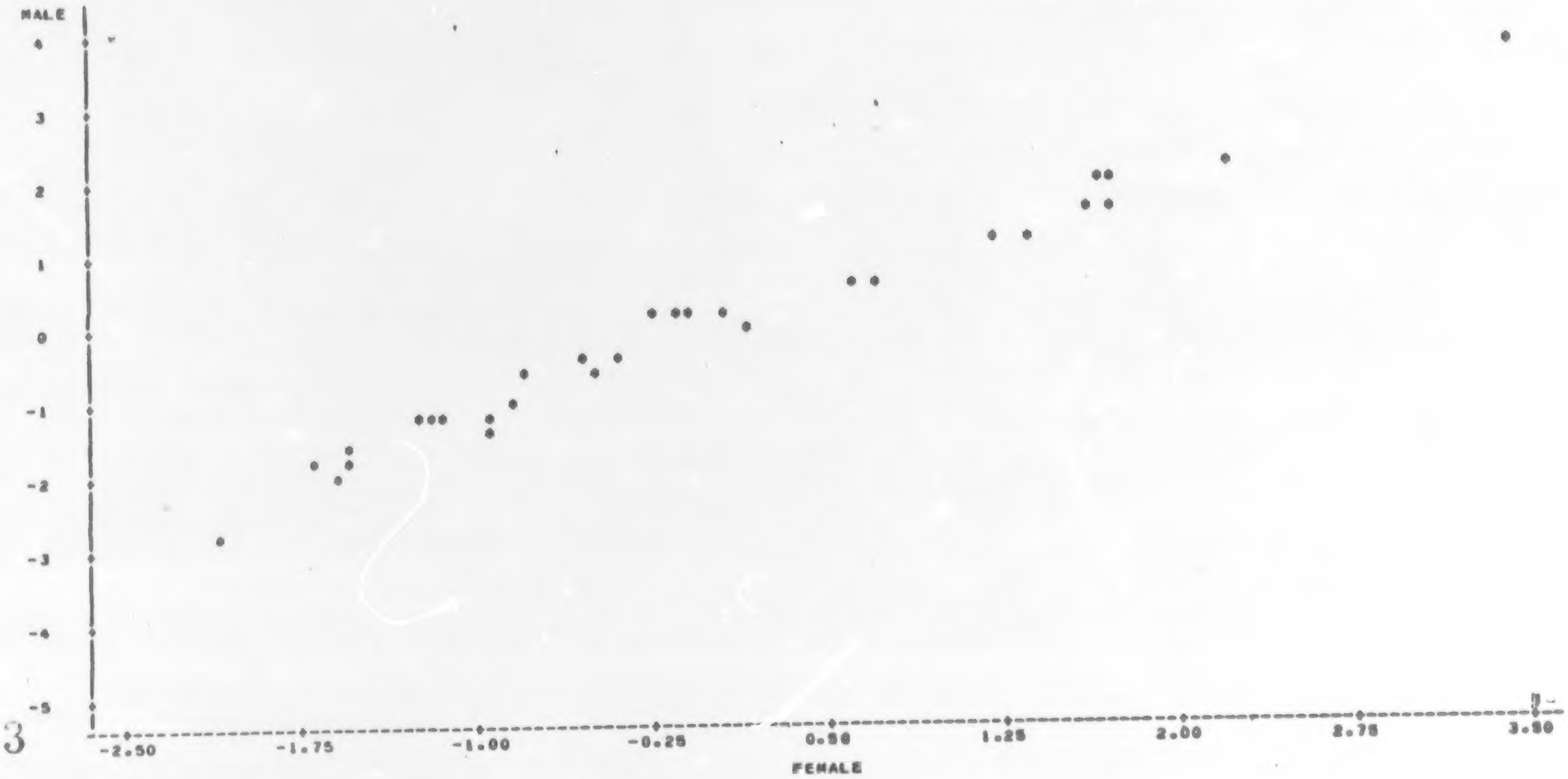
REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, LANGUAGE ARTS, GRADE 6



NOTE: 2 OBS HAD MISSING VALUES

FIGURE 27

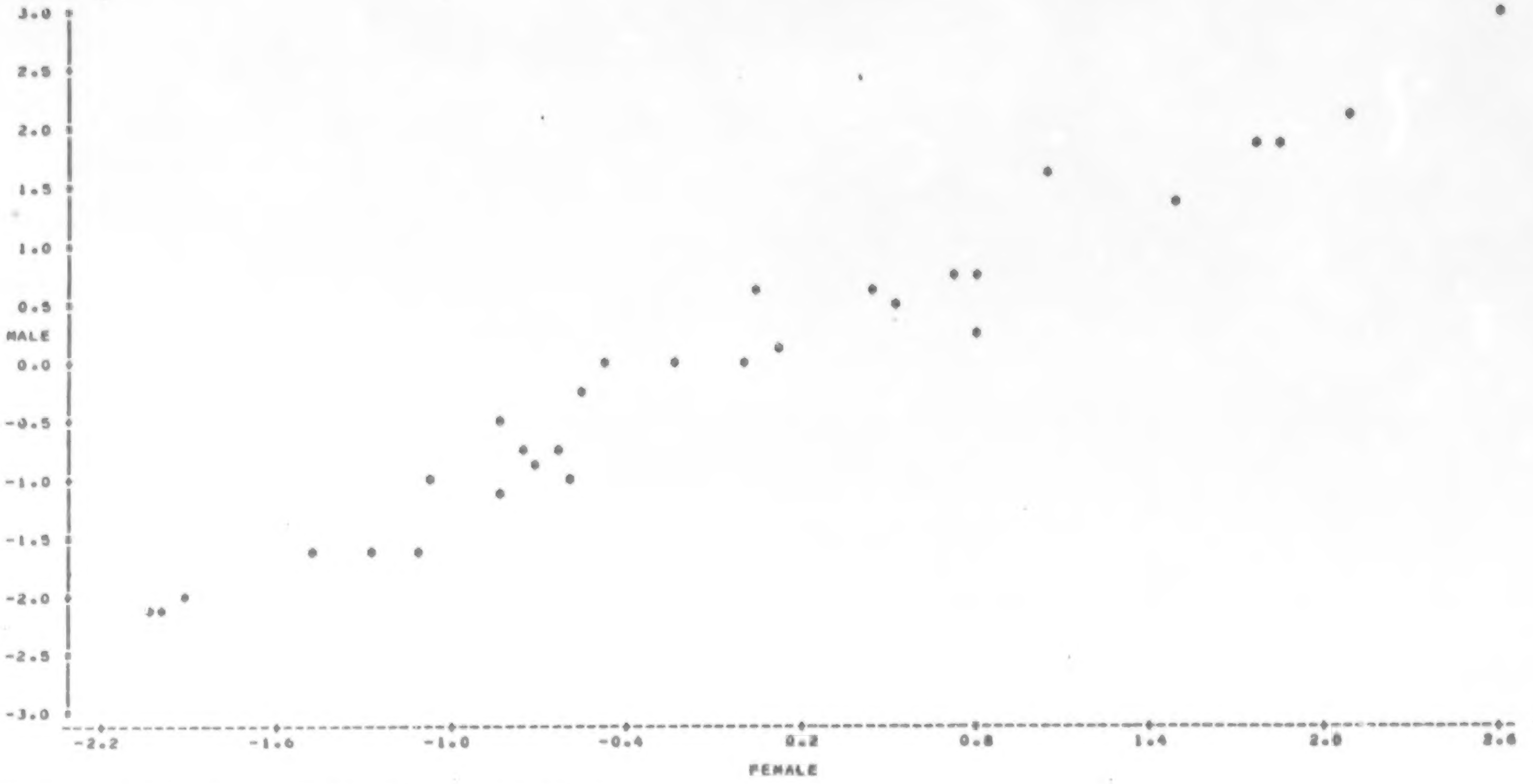
REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, LANGUAGE ARTS, GRADE 9



NOTE: 2 OBS HAD MISSING VALUES 6 OBS HIDDEN

FIGURE 28

REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, LANGUAGE ARTS, GRADE 11

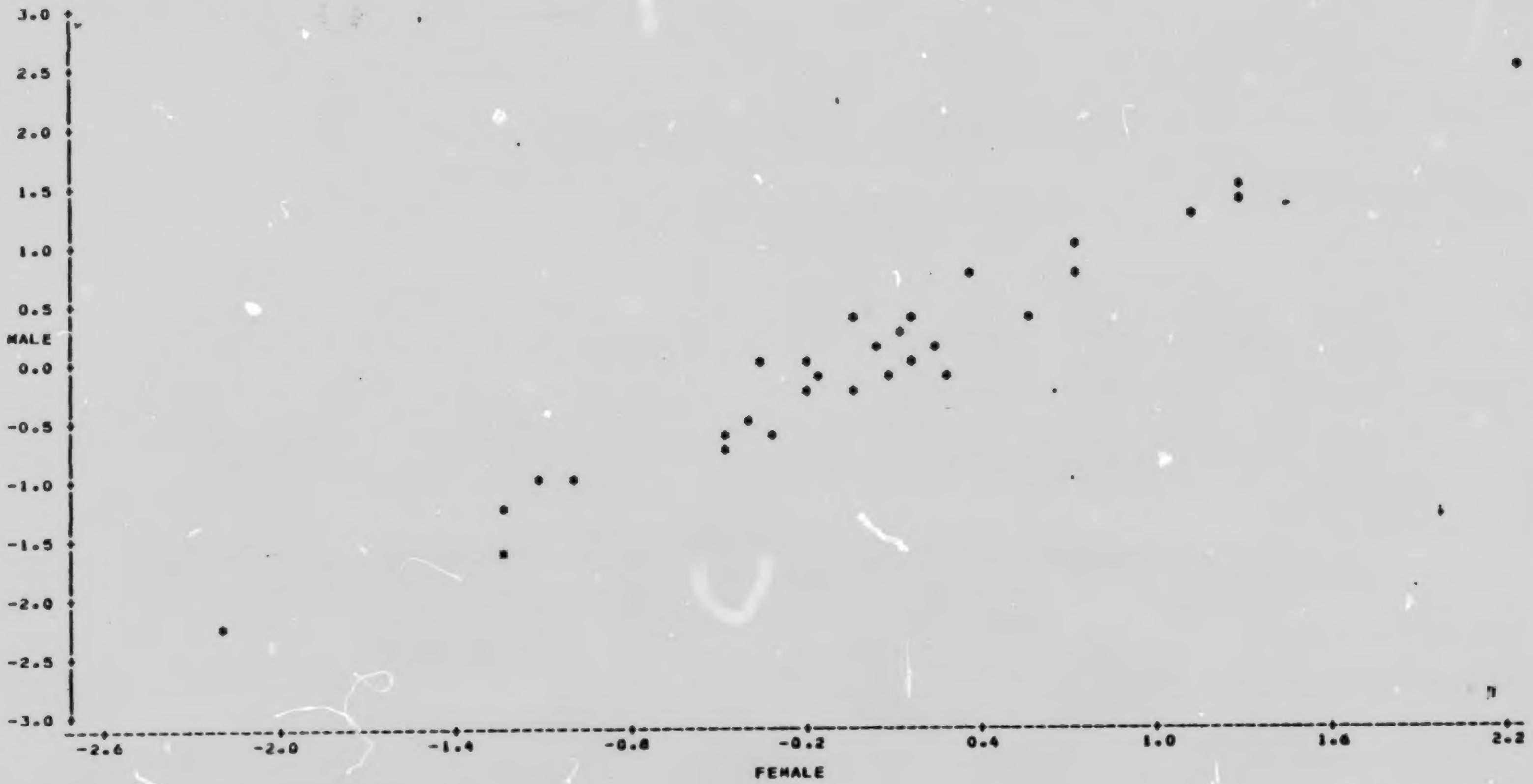


NOTE: 4 OBS HAD MISSING VALUES 4 OBS HIDDEN

A.5

FIGURE 29

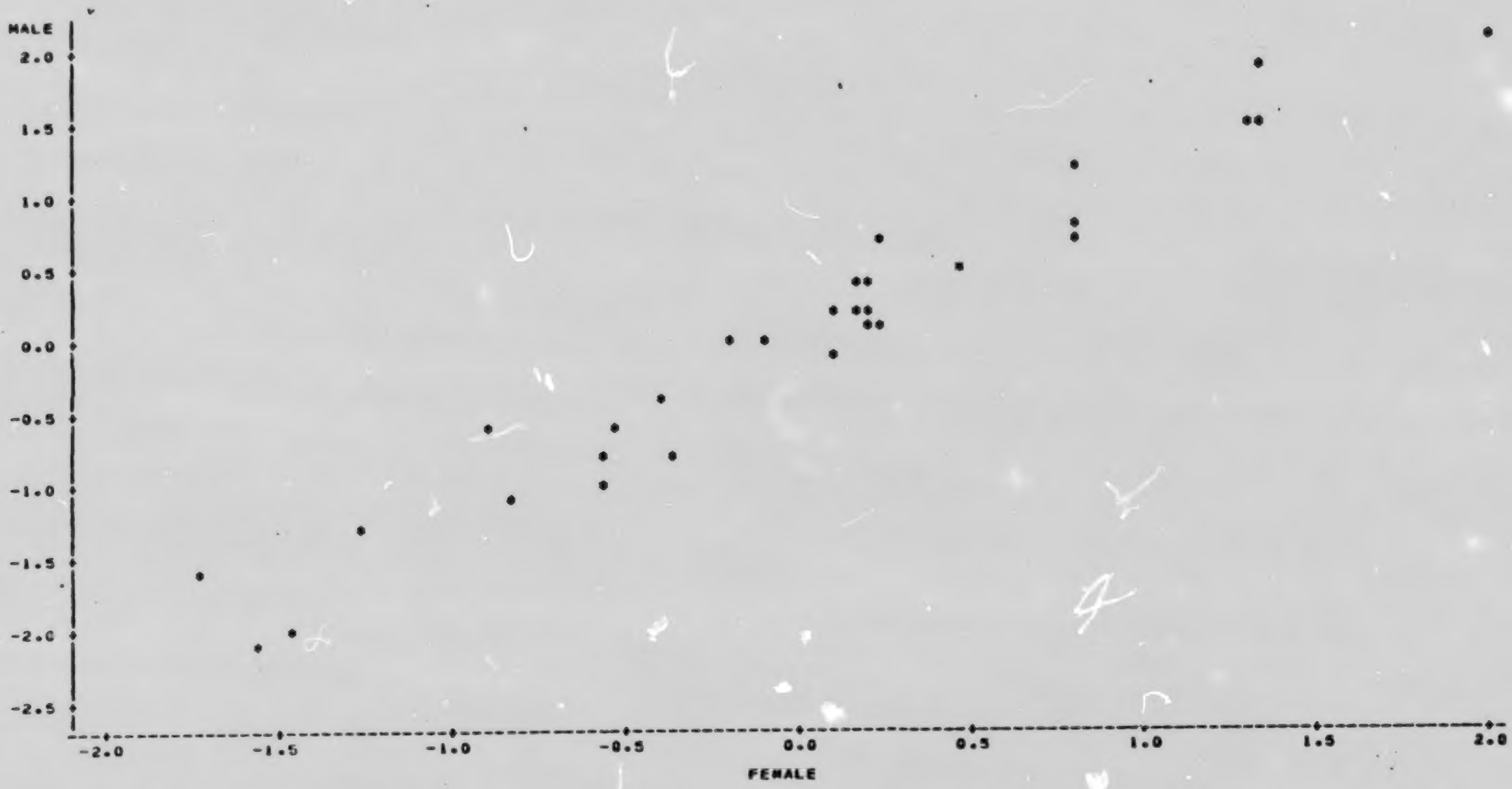
REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, MATHEMATICS, GRADE 3



NOTE: 2 OBS HAD MISSING VALUES

FIGURE 30

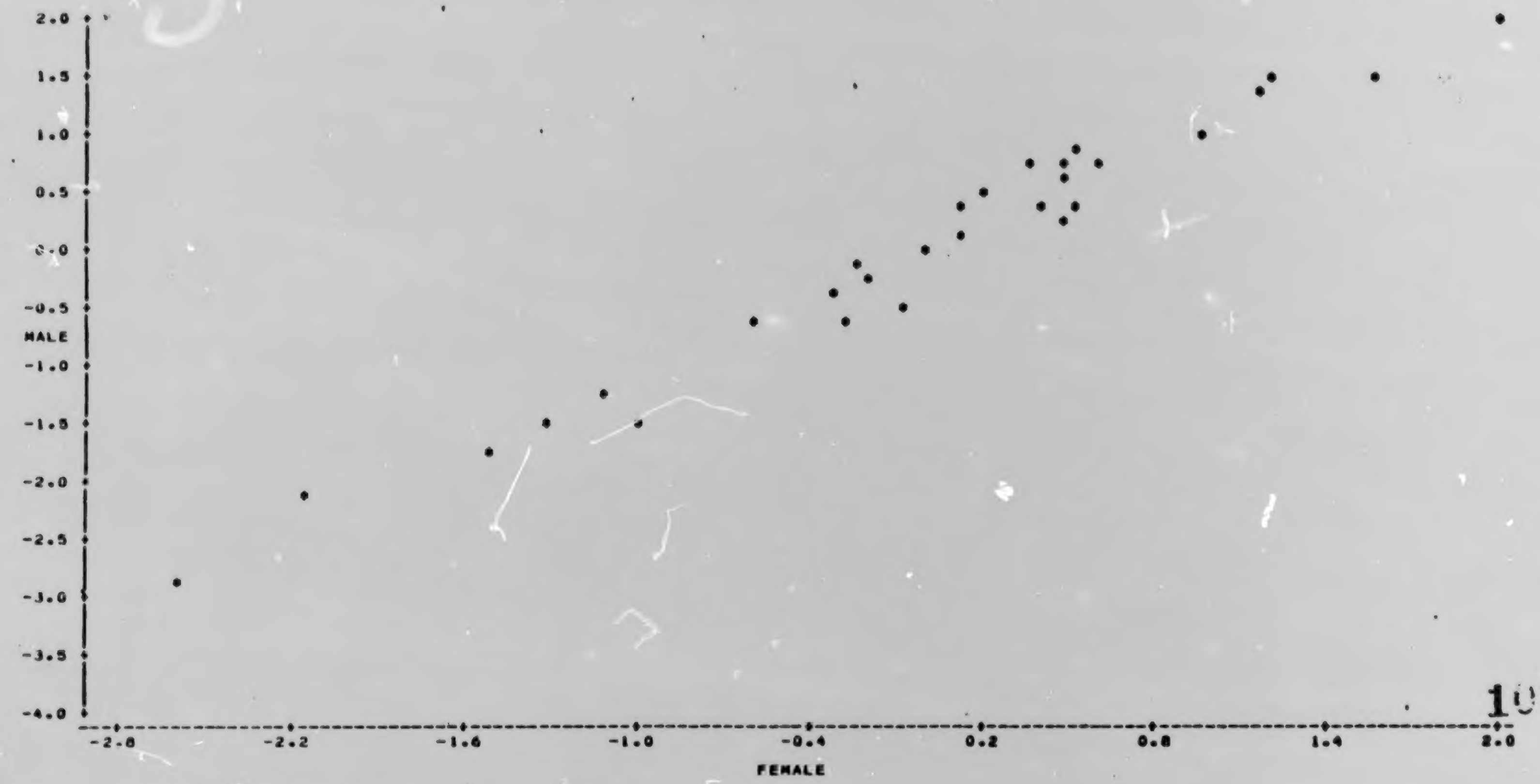
REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, MATHEMATICS, GRADE 5



NOTE: 2 OBS HAD MISSING VALUES

FIGURE 31

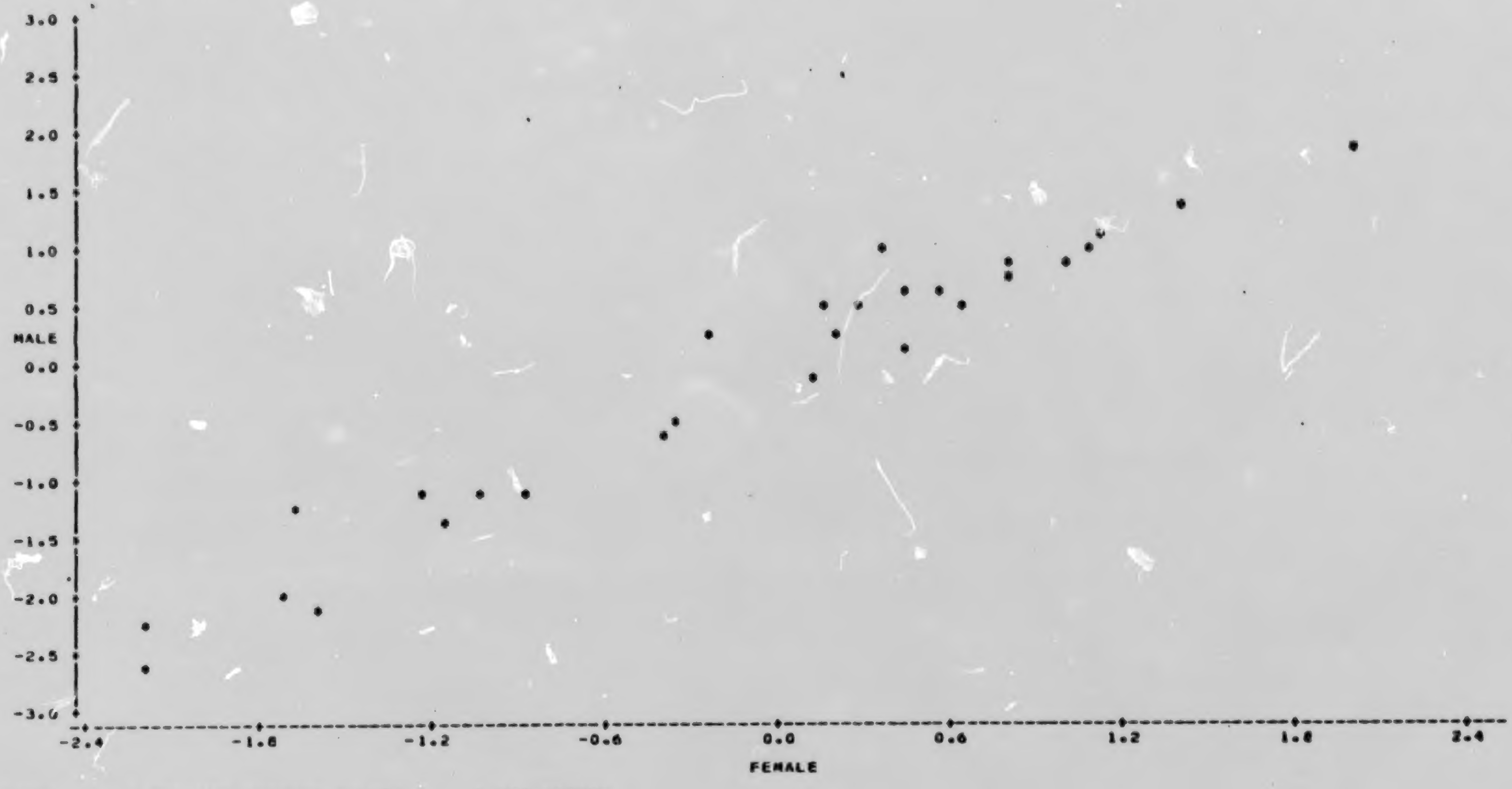
REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, MATHEMATICS, GRADE 7



NOTE: 2 OBS HAD MISSING VALUES 2 OBS HIDDEN

FIGURE 32

REGRESSION OF FEMALE ON MALE ITEM DIFFICULTIES (IN LOGITS) TO IDENTIFY POTENTIALLY BIASED ITEMS, MATHEMATICS, GRADE 11



NOTE: 4 OBS HAD MISSING VALUES 2 OBS HIDDEN

TABLE 9

Items Reviewed for Sex Bias

Test Form	Item Number	Group Favored by Item	Item Content
Reading			
Grade 4	8	Females	Contractions
11	8	Females	Interpretative Comprehension: Cause and Effect
Language Arts			
Grade 3	30	Females	Spelling: Word with short vowel digraph
6	20	Males	Friendly notes/letters
11	3	Males	Punctuation: Use of the colon
	5	Males	Usage: Subject-verb agreement
Mathematics			
Grade 5	18	Males	Mathematics applications: Graphs
7	19	Males	Measurement

CHAPTER 3: THE 1980 BASIC SKILLS ASSESSMENT TESTING PROGRAM

This chapter provides an overview of the 1980 Basic Skills Testing Program, its purposes, procedures and participants. Familiarity with the purposes of the testing program and the context in which the tests were administered is essential in understanding student performance trends discussed in Chapter Four and curricular implications of test results presented in Chapter Five. Interpretations of group test performance stems directly from the testing purposes and must take into account the characteristics of the students participating in the testing program.

Program Purposes

The Basic Skills Assessment Program has three major purposes, as described in materials developed especially for the program by the Test Development Center:*

1. Description of individual pupil strengths and weaknesses in the basic skills for the purpose of early identification of skill deficiencies.

2. Identification of curricular strengths and weaknesses in the basic skill areas for program planning and revision purposes.

3. Evaluation of student performance on selected program goals for making decisions about program effectiveness.

Program Procedures

The Basic Skills Assessment Tests were developed to assess selected curricular objectives identified from the appropriate scope and sequence documents for the grades and subjects tested. Thus, scope and sequence statements for reading and language arts in grades 3,4,6,9, and 11 and for mathematics in grades 3,5,7, and 11 provide the basis for the 1980 testing program. Chapter Two provides a description of the actual procedure employed in creating the test forms used in 1980.

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*These materials may be ordered from the Office of Research and Program Evaluation, Department of Defense Schools, Washington, D.C.

Basic Skills tests were mailed to individual school sites in the six DoDDS regions for administration in mid-May, 1980. Participating regions include: Atlantic, Northern Germany, Southern Germany, the Mediterranean, the Pacific and Panama. Conditions for test administration were standardized; all pupils taking basic skills tests were presented with the same set of directions and items. The tests themselves were not timed; thus, each student was given as much time as he/she needed to complete a particular test form. Schools then returned student answer sheets to the Test Development Center at the Los Angeles County Superintendent of Schools in Los Angeles, California for scoring and data analysis. Score reports were returned to individual schools, regional staff and the Research and Program Evaluation Staff of DoDDS, Washington, D.C. during the period from June 1, 1980 to August 15, 1980. Reports were tailored to the information needs of the various site staff and distributed as follows:

School Site Reports:	School level Administrative Summary School level Curriculum Math Reports Class level Group Analysis Reports Individual Student test results (two copies for student)
Regional Reports:	Regional level Administrative Summary Regional level Curriculum Match Reports
DoDDS Research & Program Evaluation Staff:	Regional level Administrative Summary Regional level Curriculum Match Reports

Program Participants

Number — A total of 65,018 students participated in the 1980 assessment. This is more than three times the number of students tested in 1979 (approximately 17,000), which included only grades 7,9, and 11. The region with the largest number of students participating in the program is Northern Germany, followed by Southern Germany, the Pacific, Atlantic, and Mediterranean. Panama had the smallest representation in the sample with only 4,282 participating students. Since the mean test scores reported for total DoDDS performance are influenced by the relative number of students in each region, the disproportionate number of students in any one region should be kept in mind when comparing regional test means to the DoDDS overall test means.

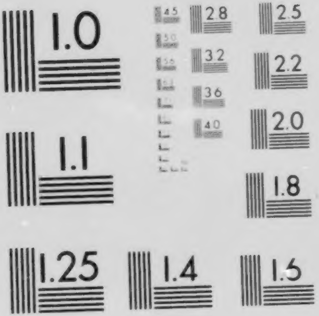
Table 10 displays the number of students participating in spring testing. The percentage of students by region and grade is also shown. The region with the largest representation, Germany North, comprises approximately 33% of the sample, while that with the smallest representation, Panama, has only 6.6% of the examinees. The number of students tested diminishes across the grades, with the largest number of students being assessed in grade 3 (20%), and the smallest in grade 11 (8%).

TABLE 10

Number and Percent of Students in Each Grade Level and Region Taking the Basic Skills Assessment Tests

Grade	Atlantic	Ger.N.	Ger.S.	Med.	Pacific	Panama	TOTAL	%Gr.
3	1392	4536	3148	1356	2015	702	13,294	.20
4	1313	3957	2816	1263	1813	692	11,961	.18
5	1217	3454	2507	1110	1718	662	10,747	.16
6	1058	2987	2140	1067	1431	573	9,310	.14
7	978	2348	1771	801	1203	565	7,746	.11
9	914	2212	1648	568	960	580	6,977	.10
11	677	1580	1114	431	621	463	4,983	.07
TOTAL N	7638	21,271	15,282	6663	9882	4282	65,018	
Regional Percentage	11.7	32.7	23.5	10.2	15.2	6.6		100

Sex — The number of males and females participating in the testing program is summarized in Table 11, which reports the percent of boys and girls taking the reading, language arts, and mathematics tests this spring. These percentages include all grades and regions represented. The number of boys in the sample slightly exceeds the number of girls tested, but the overall proportion of males to females is only 51% males to 49% females. Figure 33, which displays


1.0
4.5
5.0
5.6
6.3
7.1
8.0
2.8
3.2
3.6
4.0
2.5
2.2
2.0
1.1
1.8
1.25
1.4
1.6

MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

Actual frequencies of females and males taking the tests, also shows that the two sexes are about equally represented. The proportion of female to male examinees for each region and grade is displayed in Figure 33. Reading across the figure, one can compare the proportion of examined in each region. By examining each block individually, one can find the number of examinees in a particular region and the relative proportion of females to males. Although the overall proportion of males to females is nearly equivalent, one can find regional and grade aberrations. For example, in Germany North, the Mediterranean, and Pacific at grade 11, females outnumber males two to one, in Germany South the numbers are equal, and in the Atlantic and Panama males outnumber females. Differences in the proportion of each sex in any one region do assume importance when there are differences in test performance for males and females. In those regions where females outnumber male examinees and they tend to be doing either better or worse than the males, one might wish to examine course enrollment numbers for the sexes in that particular region. This examination may provide a partial explanation for "sex-linked" test performance.

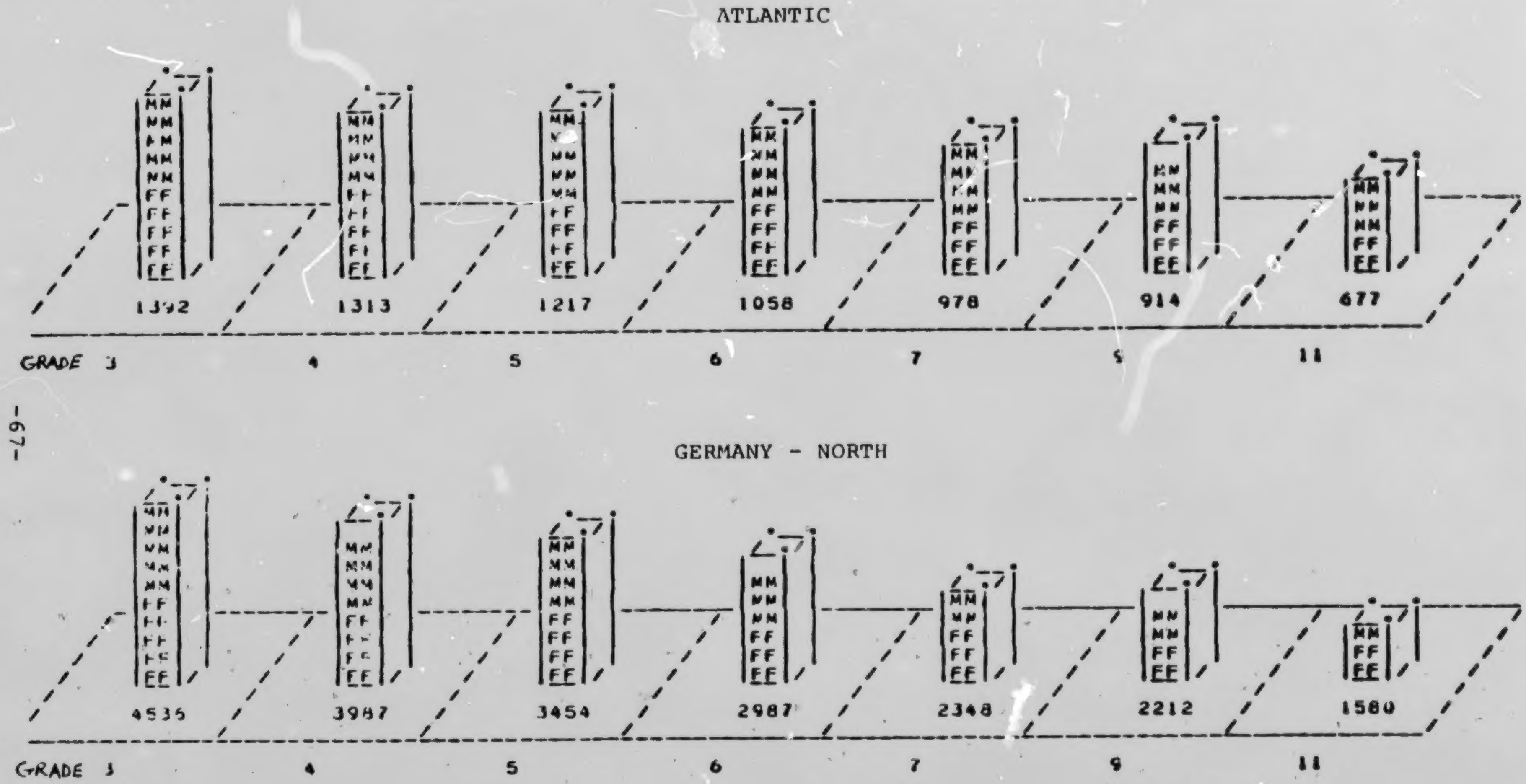
TABLE 11

Percentage of Females and Males Taking
Basic Skills Assessment Tests, Spring - 1980

SEX	READING	LANGUAGE ARTS	MATHEMATICS	TOTAL (R/L1-M)
FEMALE	17.58 (22,589)	17.58 (22,589)	13.85 (17,792)	49.04 (31,578)
MALE	18.27 (23,468)	18.27 (23,468)	14.46 (18,577)	50.95 (32,813)

FIGURE 33a

FREQUENCY DISTRIBUTION OF BASIC SKILLS ASSESSMENT TEST EXAMINEES BY REGION AND GRADE DISPLAYING THE PROPORTION OF FEMALES TO MALES

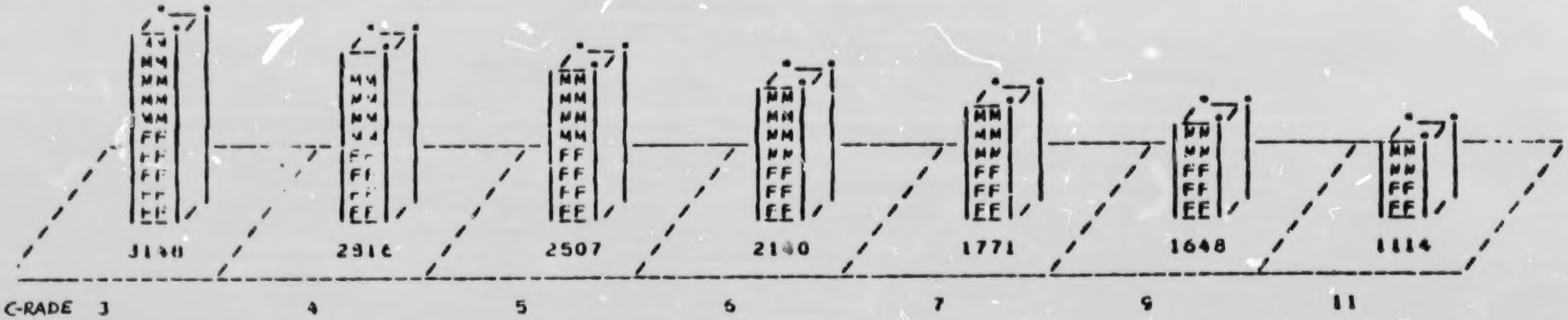


Key - F = Female
M = Male

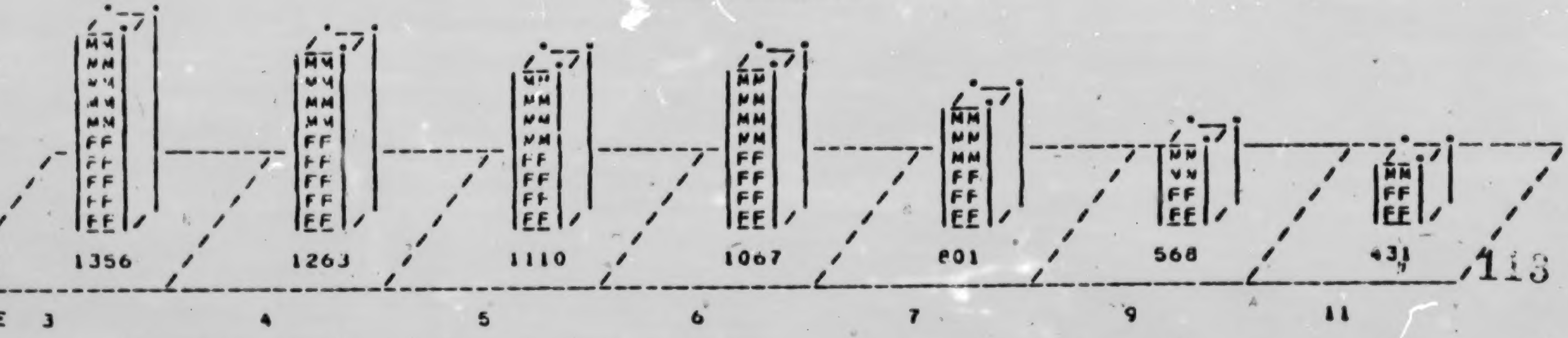
FIGURE 33b

FREQUENCY DISTRIBUTION OF BASIC SKILLS ASSESSMENT TEST EXAMINEES BY REGION AND GRADE DISPLAYING THE PROPORTION OF FEMALES TO MALES

GERMANY - SOUTH



MEDITERRANEAN

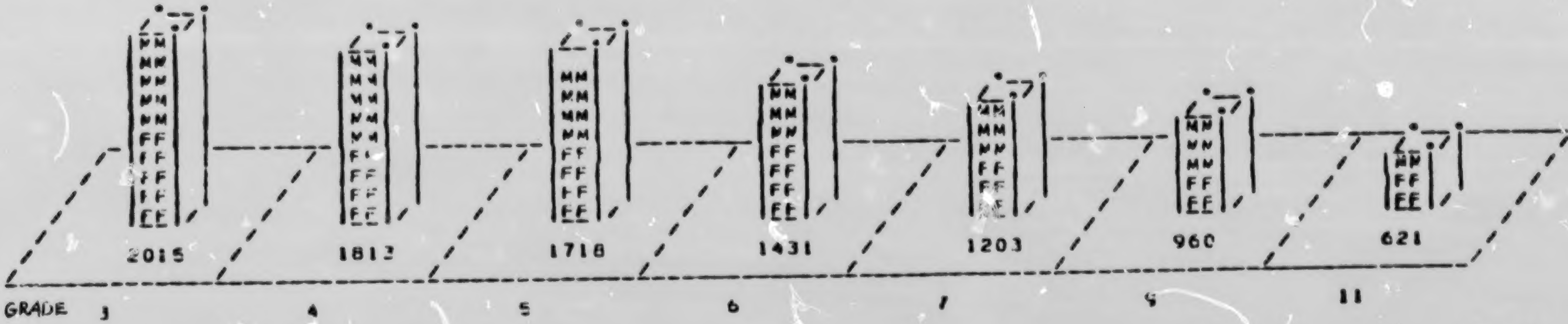


Key - F = Female
M = Male

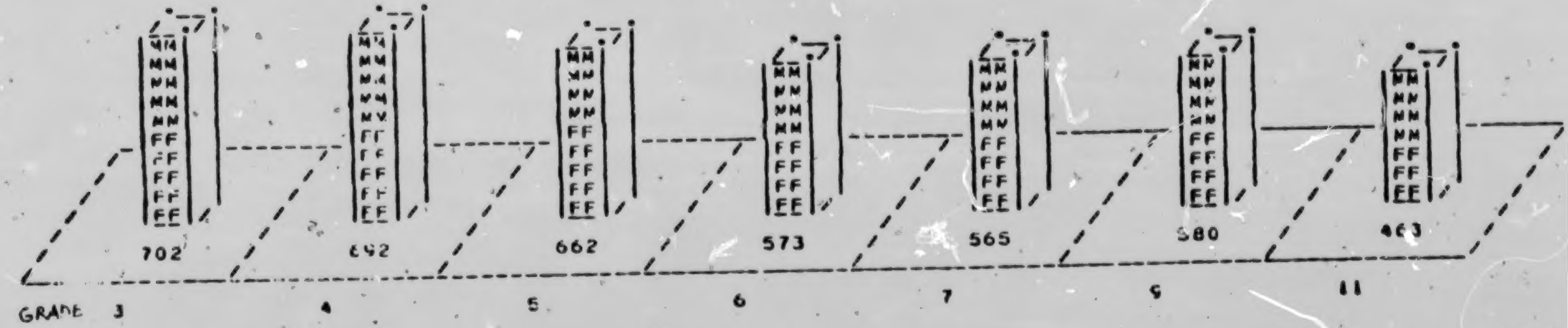
FIGURE 33c

FREQUENCY DISTRIBUTION OF BASIC SKILLS ASSESSMENT TEST EXAMINEES BY REGION AND GRADE DISPLAYING THE PROPORTION OF FEMALES TO MALES

PACIFIC



PANAMA



Key - F = Female
M = Male

Demographic Characteristics — Students participating in the 1980 testing program were administered a brief demographic survey requesting self-report information on the following: language spoken at home, years in DoDDS schools, branch of service of sponsor and rank of sponsor.

In reviewing the results of this survey, one must remember that this information is self-reporting by the students and therefore limited by their understanding of the question, knowledge of the answer, and need to make "socially acceptable" responses.

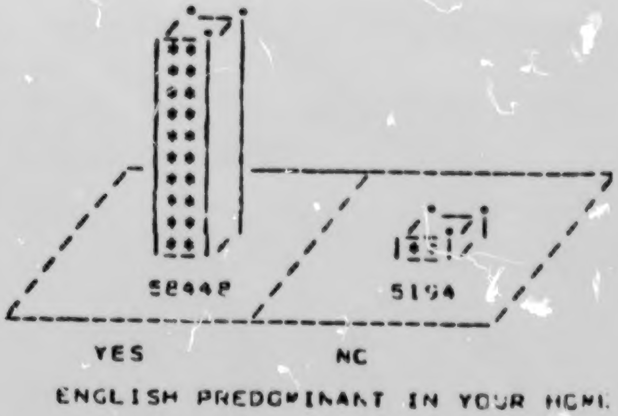
Figure 34 displays the actual number of students responding to each question on the demographic survey. Table 12 represents the percentage of students selecting each response on the survey. In reviewing the figure and table summarizing questionnaire results, one result should be kept in mind when looking at the responses for any particular region or when reviewing test results in the next section.

The number of students answering "don't know" or failing to answer any one question decreases as the students get older (these data are not displayed). This decrease in the number of "don't know" omitted responses would indicate that for the younger examinees survey results may be less accurate than for older respondents. If follow-up is to be done for any one question, such as home language, the "reliability" of findings for this younger group should be examined.

FIGURE 34

Questionnaire Results: Number of Students Selecting each Response for the Demographic Survey

Question 1: Is English predominant in your home?



Question 2: How many years in DoDDS schools?

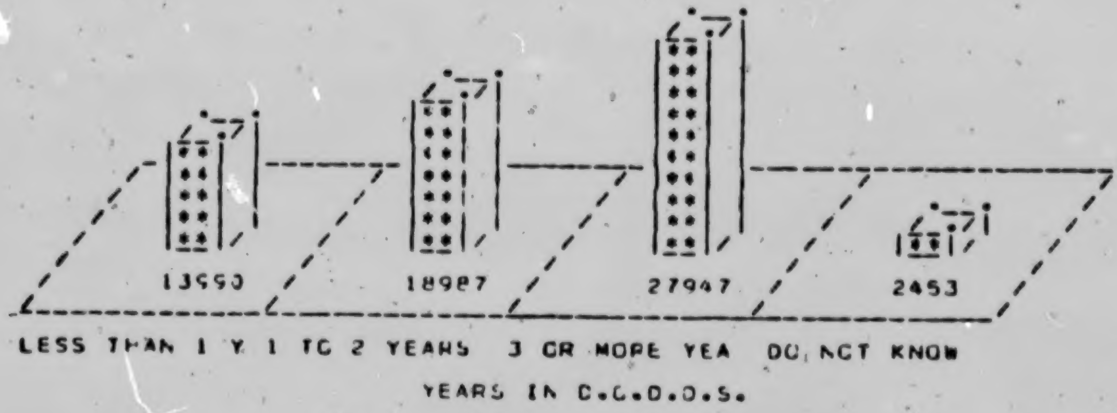


FIGURE 34 (cont.)

Questionnaire Results

Question 3: What is the branch of service of your sponsor?

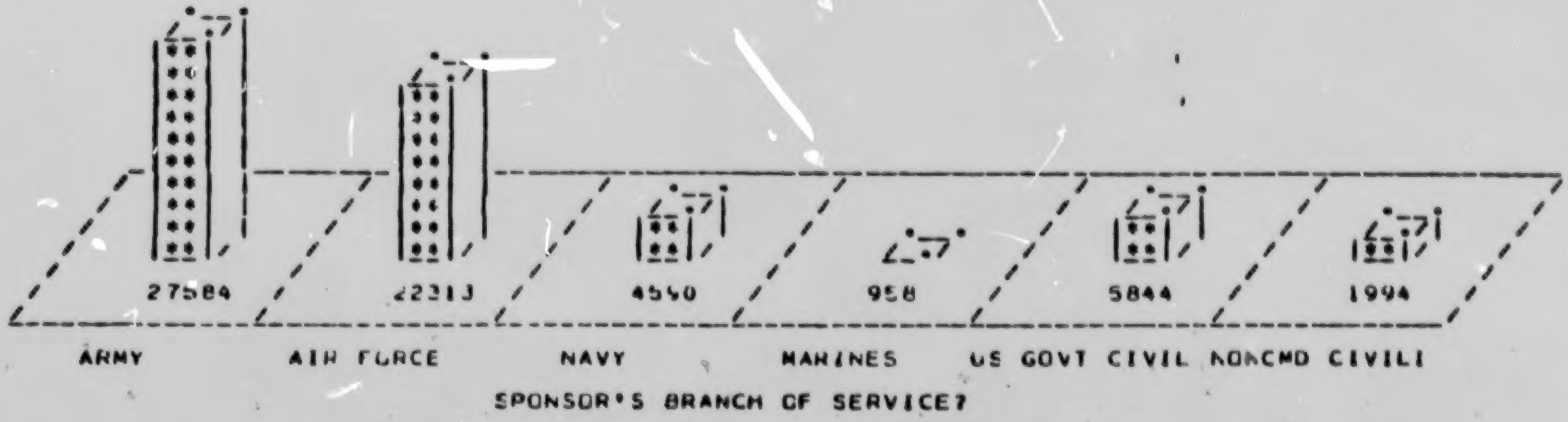
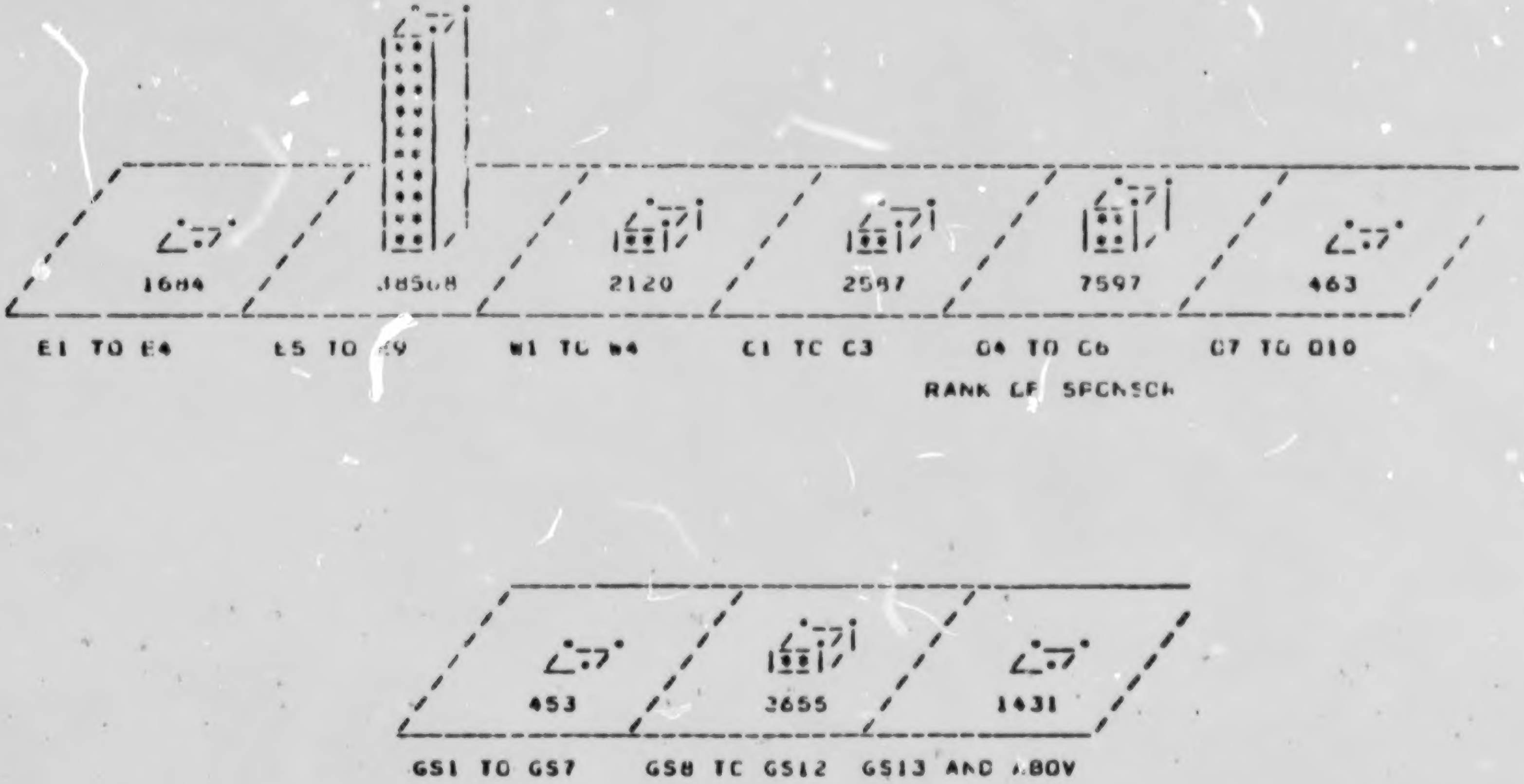


FIGURE 34 (cont.)

Question 4: What rank is your sponsor?



Rank of Sponsor (Cont'd.)

TABLE 12

Response to Student Background Survey: Percent
Responding Across Region and Grade Level

Category	%
Home Language (N=64,237)	
Is English predominant in your home?	
Yes	91.8
No	8.2
Instructional History (N=63,969)	
How many years in DoDDS?	
Less than 1	22.1
1 to 2 years	29.9
3 or more years	44.1
Don't know	3.8
SES (N=63,871)	
Sponsor's Branch of Service?	
Army	43.6
Air Force	35.3
Navy	7.2
Marines	1.5
U.S. Govt. Civilian	9.2
Noncmd. Civilian	3.2
SES (N=59,082)	
Sponsor's Rank?	
E1-E4	2.9
E5-E9	65.9
W1-W4	3.6
01-03	4.4
04-06	13.0
07-010	.8
GS1-GS7	.77
GS8-GS12	6.23
GS13+	2.5

Survey results indicate that the majority of DoDDS students, fully 92%, come from predominantly English-speaking homes. They have attended DoDDS schools for three or more years (44%) and are sponsored by either army (44%) or air force (35%) families. The overwhelming majority of examinees claim that their sponsor's rank is E5-9. Although these generalizations may loosely characterize the DoDDS examinee, an analysis of survey results by region and grade yields some interesting findings. These results are presented in the next section.

Results of the Demographic Survey

Home Language — The student questionnaire asked, "Is English predominant in your home?" In interpreting the results of this question, several things must be remembered. The percentage figures displayed in the tables represent the self-reported home language, not which language a student speaks or understands best. The word "predominant" may or may not have been understood by all of the respondents (especially younger ones). Some of the students answering "yes" to this question may have understood it to mean, "Does someone speak English at home?" Conversely, some students may have answered "No," even though English was widely-used at home, but not by the parent with whom they have the most contact. Second, this question does not tap the language proficiency of the student; nor does it tap the language preference of the student as it relates to school subjects. It is quite possible that a student comes from a non-English-predominant home and is fluent in a foreign language, but would never use it in school. An example of this is the context-based language use of many bilinguals who know all the words for home activities in their native language, but know only the English vocabulary for subjects learned in school.

With the above caveats in mind, the straightforward interpretation of the first question is, "What percentage of students live with adults who use a foreign language in the home or in non-school contexts?" The implications this question has for identifying students having trouble in school due to poor English proficiency are not clear. Further, language proficiency testing and evidence of poor school performance are both needed for individual examinees before instructional intervention for limited-English-speaking students is indicated.

The overwhelming majority of DoDDS students (92%) come from homes where the use of English is predominant. This, however, is not true for individual regions. Tables 3 and 4 review the percentage of students from English-dominant homes by region. It is clear that some regions have more potential non-native English proficient students than do others. Panama with a 70% English predominant student population, is one region where the possibility of bilingual instruction might be investigated. The Pacific and Mediterranean, with approximately 11% of the student population responding "no" to the home language question, are other areas where student language proficiency might be assessed. There are, however, no test results for groups of students that indicate home language has been a factor in test performance. Whether this is true for individual students remains to be investigated.

Table 13 also indicates that the percentage of females coming from English predominant homes is not much smaller than the percentage of males. While these percentages differences may be statistically significant due to the large number of students in the DoDDS sample, practical implications for educational planning are almost nil.

TABLE 13

a. Percentage of Predominantly English-Speaking Students: By Grade

	GRADE 3	GRADE 4	GRADE 5	GRADE 6	GRADE 7	GRADE 9	GRADE 11
YES	91.4	92.0	92.3	92.5	91.4	91.4	91.3
NO	8.6	8.0	7.7	7.5	8.6	8.6	8.7
TOTAL Number Responding	12,988	11,800	10,630	9,224	7,710	6,940	4,945

b. Percentage of Predominantly English-Speaking Students: By Region

	ATLANTIC	GER.N.	GER.S.	MED.	PAC.	PAN.	TOTAL % IN EACH CATEGORY
YES	96.6	94.3	92.7	88.8	88.2	79	91.7
NO	3.4	5.7	7.3	11.2	11.8	21	8.3
TOTAL % Represented by Region	11.6	33.3	23.5	10.1	15.7	6.4	

c. Percentage of Predominantly English-Speaking Students: By Sex

	FEMALE	MALE
YES	91.6	92.0
NO	8.5	8.0

Years in DoDDS Schools — Table 14 summarizes the percentage of students attending DoDDS schools for less than one, one to two, and over three years. The table displays the percentage of students attending for selected periods by grade level and by region across grade levels. The figure presents a comparison of the percentage of students in each attendance category at each grade to the average percentage of students attending DoDDS schools for less than one, one to two, and three or more years. Students who have attended DoDDS schools for the shortest period are concentrated in grade 3; for the longest period in grade 11, followed by grade 9. The actual number of students, however, is larger for grades 3-4 than for 9-11. Thus, the elementary grades have to make more adjustments for transfer and new students than do the secondary schools.

The region having the most students new to the system is Panama. The proportion of students in the system one year, versus the percentage attending three or more years, is fairly comparable for the other regions where about 19-21% of the students are new and 43-46% have attended DoDDS schools three or more years.

A review of Table 14 reveals that, for all DoDDS students across grades and regions, about 20% have attended less than one year, 29% less than two years, and 43% three or more years. Grades 4-11 have fewer than this average percentage of students attending DoDDS schools less than one year. The elementary grades have fewer than the average percentage of students attending DoDDS schools three or more years, while the secondary grades, beginning at about grade 6, have more than the average percentage of students enrolled longer than three years.

In general, the majority of students have been in the system for at least three years, although there are some sharp exceptions by region and grade.

TABLE 14

a. Percentage of Students in Each Grade Attending DoDDS Schools from Less Than One to More Than Three Years

NUMBER OF YEARS	GRADE 3	GRADE 4	GRADE 5	GRADE 6	GRADE 7	GRADE 9	GRADE 11
LESS THAN ONE	24.7	23.2	23.1	20.1	20.8	19.4	19.8
ONE-TWO		35.1	30.3	28.5	24.8	22.7	19.7
THREE +	33.8	37.4	41.7	47.8	49.8	55.8	59.6
DON'T KNOW	4.3	4.4	4.9	3.6	4.5	2.4	1.0
TOTAL Number Responding	12,865	11,755	10,561	9,217	7,696	6,930	4,945

b. Percentage of Students in Each Region Attending DoDDS Schools for Less Than One to More Than Three Years

NUMBER OF YEARS	ATLANTIC	GER.N.	GER.S	MED.	PAC.	PAN.	TOTAL % IN EACH CATEGORY
LESS THAN ONE	21.7	19.0	19.0	21.0	18.2	64.7	22.3
ONE-TWO	28.8	32.0	31.9	31.8	33.1	13.3	30.6
THREE +	46.3	45.5	45.5	43.6	44.3	18.2	43.5
DON'T KNOW	3.2	3.5	3.7	3.6	4.3	3.9	3.7
TOTAL % Represented By Region	11.6	33.3	23.6	10.2	15.1	6.3	

Branch of Service - The percentage of students indicating which branch of service their sponsors belong to is displayed in Table 15. Branch of service categories for grade levels indicate that the largest proportion of student sponsors belong to the Army followed by the Air Force at all grade levels. The proportion of U.S. government civilian sponsors increases from grade 3 to 11, while proportions for service personnel remain fairly constant.

Regional distributions of sponsor's branch of service show more variation. The Atlantic has the lowest percentage of Army sponsors and the highest of Air Force while Germany South shows the opposite pattern. The Navy, not surprisingly, is most heavily represented in the Mediteranhean and Pacific. Panama shows the highest concentration of U.S. government employees when compared to the other regions.

Rank of Sponsor - The percentage of students at each grade level and in each region indicating selected sponsor ranks is displayed in Table 16. This variable is of considerable interest because of its relationship to test results (refer to the discussion of demographic comparisons in Chapter Four). As with branch of service, the distribution of the percentage of sponsors in selected rank categories is comparable across grades but not regions. Although E5-9 appears to be the predominant rank of sponsor in all regions and grades, the proportion of E5-9 drops dramatically in Panama where there is a corresponding rise in GS 8-12 ranked sponsors.

Summary of Demographic Survey Results

A review of the questionnaire responses suggests that there are regional differences that potentially can influence education program planning or outcomes among the regions. Further investigations into student language proficiency in Panama, the Mediterranean and Pacific and its relationship to educational outcomes are indicated. Similarly, programs for third graders may have to accommodate more new students to the DoDDS system than previously recognized. Again the curricular implications of planning for new versus "old" students are not clear; but may deserve further investigation. Finally, insofar as test performance is linked with family socio-economic status, the distribution of various sponsor ranks among the regions bears review. It may mean that certain regions will incorporate more enrichment or remedial basic skills objectives into future revisions of the basic skills curriculum.

TABLE 15

a. Percentage of Students Classified by Branch of Service of Sponsor at Each Grade

BRANCH	GRADE 3	GRADE 4	GRADE 5	GRADE 6	GRADE 7	GRADE 9	GRADE 11
ARMY	47.5	46.2	44.4	43.7	38.9	40.3	36.4
AIR FORCE	35.3	35.3	35.9	35.7	36.6	36.4	33.4
NAVY	7.5	7.7	7.3	7.6	7.8	6.4	4.9
MARINES	1.5	1.4	1.7	1.5	1.6	1.4	1.4
U.S. GOVT.CIVIL.	6.2	7.1	8.7	8.6	10.4	13.0	17.6
NON COM U.S. GOVT.	2.0	2.4	2.3	2.8	4.6	4.5	6.3
TOTAL N Responding	12,944	11,742	10,551	9,172	7,671	5,892	4,899

b. Percentage of Students Classified by Branch of Service of Sponsor in Each Region

BRANCH	ATLANTIC	GER.N.	GER.S.	MED.	PAC.	PAN.	TOTAL % PER BRANCH
ARMY	8.0	51.1	86.6	14.2	11.7	36.5	43.9
AIR FORCE	66.6	40.6	3.8	51.9	46.0	13.0	35.1
NAVY	14.2	.1	.6	19.5	21.0	2.9	7.1
MARINES	1.1	.1	.2	.5	8.1	.4	1.5
U.S.GOVT.CIVIL.	7.8	6.2	6.6	6.8	11.2	36.5	9.2
NON COM U.S. GOVT.	2.4	2.0	2.3	7.2	2.0	10.6	3.2
TOTAL % Represented By Region	11.6	33.3	23.6	10.1	15.1	6.3	

TABLE 16

a. Percentage of Students Classified by Rank of Sponsor at Each Grade

RANK	GRADE 3	GRADE 4	GRADE 5	GRADE 6	GRADE 7	GRADE 9	GRADE 11
E1-4	4.9	3.7	2.6	2.2	2.1	1.3	1.1
E5-9	68.8	68.8	66.4	67.2	64.4	62.6	54.2
W1-4	3.4	3.3	4.1	3.6	3.8	3.8	3.5
01-3	6.5	5.5	4.4	3.6	3.4	2.5	2.3
04-6	9.9	11.9	12.6	14.5	13.8	15.1	17.[illegible]
07-10	.4	.6	1.2	.6	.9	.9	1.6
GS1-7	.4	.4	.6	.5	1.0	1.8	1.5
GS8-12	4.4	4.4	5.8	5.7	7.5	8.5	12.4
GS13+	1.3	1.4	2.3	2.2	3.3	3.6	6.1
TOTAL N Responding	11,928	10,874	9,807	8,461	7,093	6,392	4,527

b. Percentage of Students Classified by Rank of Sponsor in Each Region

RANK	ATLANTIC	GER.N.	GER.S.	MED.	PAC.	PAN.	TOTAL % PER RANK
E1-4	3.6	2.9	2.2	4.2	3.6	3.2	3.1
E5-9	66.5	69.4	66.9	60.9	66.0	46.4	65.8
W1-4	1.5	3.5	5.8	2.2	2.6	3.1	3.5
01-3	4.9	4.8	3.4	5.4	5.9	3.6	4.6
04-6	14.8	11.9	13.5	13.9	12.7	8.0	12.8
07-10	1.0	.6	.6	.8	1.3	.7	.8
GS1-7	.6	.4	.3	.8	.5	5.7	.8
GS8-12	5.2	4.6	4.9	9.0	5.9	20.2	6.2
GS13+	1.9	1.9	2.4	2.9	1.5	8.5	2.4
TOTAL % Represented By Region	11.7	34.6	24.6	9.4	14.9	4.7	

CHAPTER 4: BASIC SKILLS ASSESSMENT PROGRAM RESULTS

Results of the Basic Skills Assessment Tests are presented in this chapter in several forms. The basic unit of analysis for test results was the mean test score; thus discussion of test results generalizes only to *groups* of students and *clusters* of programs rather than to particular programs or individuals. The curricular implications of test results in this chapter are neither direct nor apparent; for this reason, you are referred to the final chapter, which discusses the findings presented here in more detail and with specific reference to relevant instructional objectives.

This section is organized on the basis of the kinds of comparisons run during the analysis of test data. There are several comparisons found in the following sections: Comparison of Test Score Distributions; Comparisons Among Grades; Comparisons Among Regions; Comparison by Sex; and, Comparisons by Demographic Characteristic of Examinees.

Comparisons of Test Score Distributions

A comparison or review of test score distributions reveals the actual test difficulty of DoDDS students in general, and shows the extent to which most of the students did well, poorly, or were evenly distributed across all possible scores. Although "skewed" distributions have implications for those using classical test theory because they indicate students have reached the test "ceiling" or "floor," affecting the reliability of test scores and limiting the interpretability of results, no such problems occur when the Rasch model is used. For Rasch-designed tests, score reliability is a function of the student ability level and the standard error of measurement at a particular score. Thus, reliability is not strictly dependent upon where students fall on the score range; although, in practice, extreme scores do have greater measurement errors. When it comes to interpreting the results of tests where the underlying distribution is skewed, the issue is easily resolved for DoDDS students. The interpretation of Basic Skills Assessment Tests is tied to the objectives tested, not the student's rank in the scoring distribution. Thus, if many students do well, it *may* indicate the test was "too easy" (*if* the purpose of the test is to spread students out along the score continuum) or it may indicate that students have mastered that objective as a result of effective instruction. Because no pre-test data is available, we do not know if some of the students already possessed skills tested on the BSA; nevertheless, large numbers of students mastering objectives that all agree are important is valuable information.

The issue of test difficulty is unclear with the Basic Skills Tests. Further light can be shed on whether the test was inappropriate by including pre-testing in next year's plan for basic skills assessment.

Figures 35 to 48 display the distributions of the 14 basic skills assessment tests. What the test distributions share is the fact the students are scoring toward the high end of the distribution, rather than being spread out along the "normal" curve. Frequency distributions for mathematics grades 7 and 11 indicate that these two tests may need review. The shape of grade 7's test distribution is fairly flat, indicating that students are scoring equally along some sections of the distribution. Perhaps skills are not carefully differentiated on this test, or item difficulties are not representative of the kinds of skills possessed by the student population. Similarly, for grade 11 mathematics, the majority of students are doing quite well. Instruction may have been very effective or students may need more challenging items and advanced skills.

A review of the relevant tests in light of curricular objectives, the entry level skills of the students, and how the reading, language arts, and mathematics programs were actually implemented is in order before test revisions are made.

FIGURE 35

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE READING, GRADE 3 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

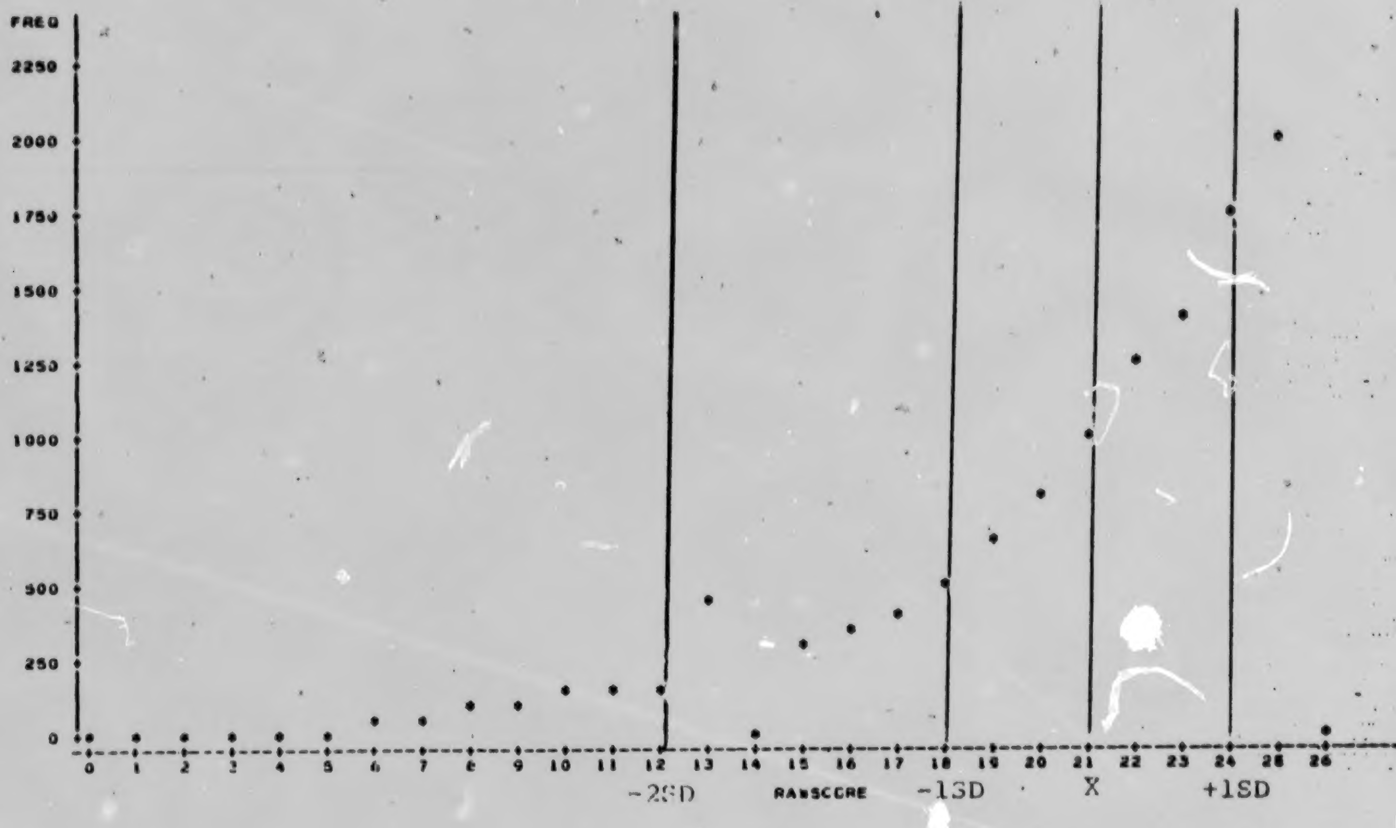


FIGURE 36

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE READING, GRADE 4 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

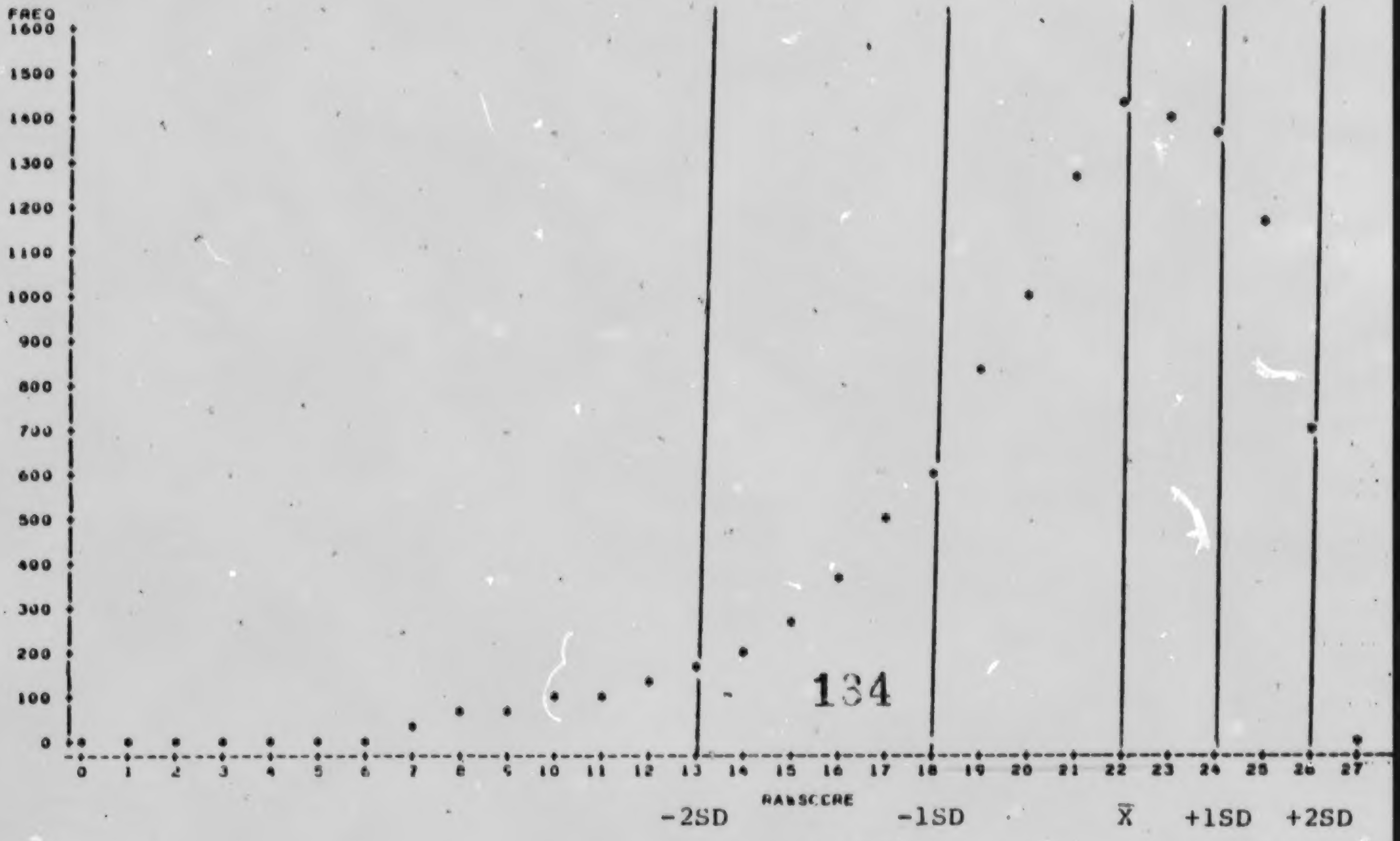


FIGURE 37

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE READING, GRADE 6 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

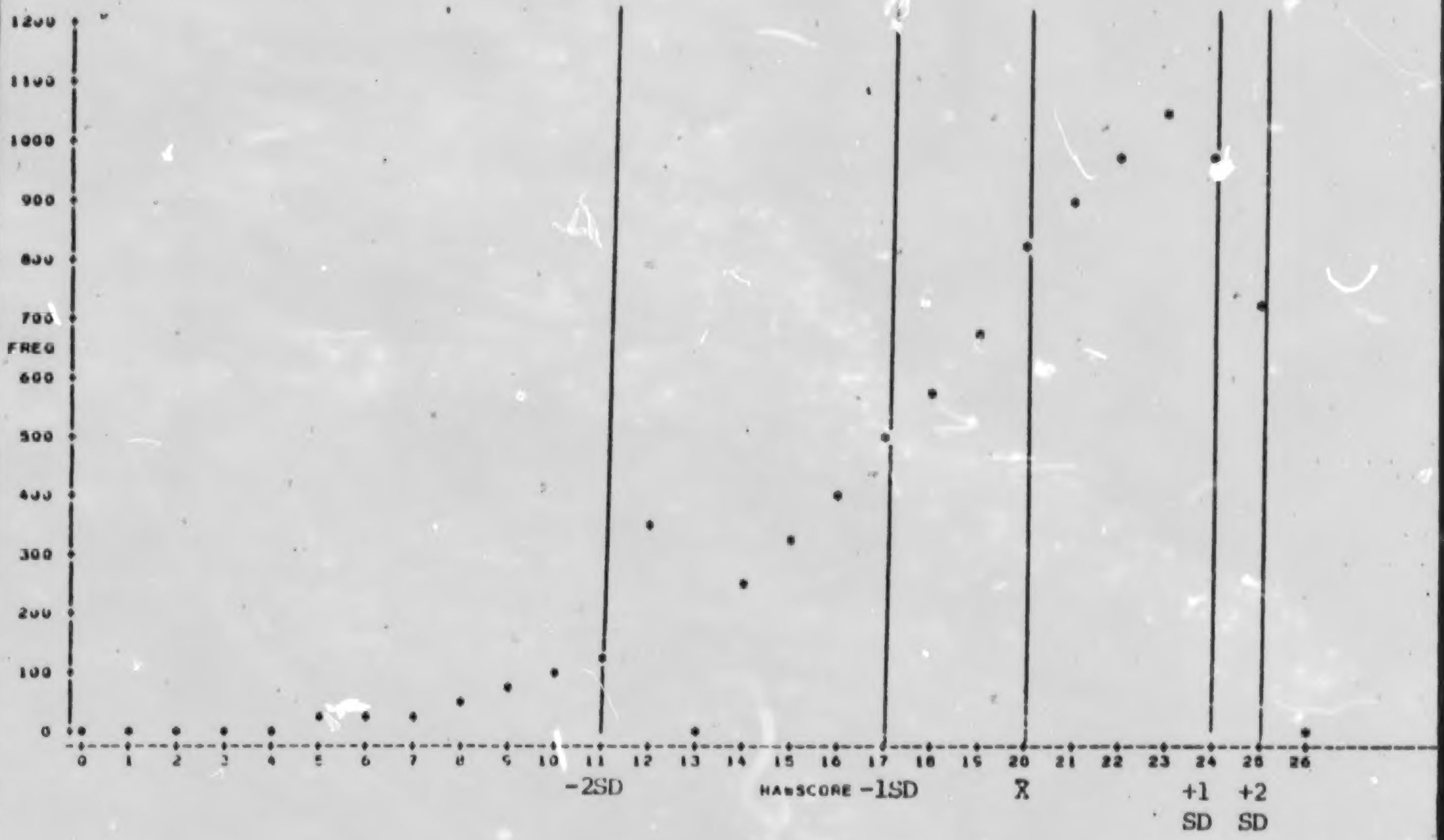


FIGURE 38

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE READING, GRADE 9 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

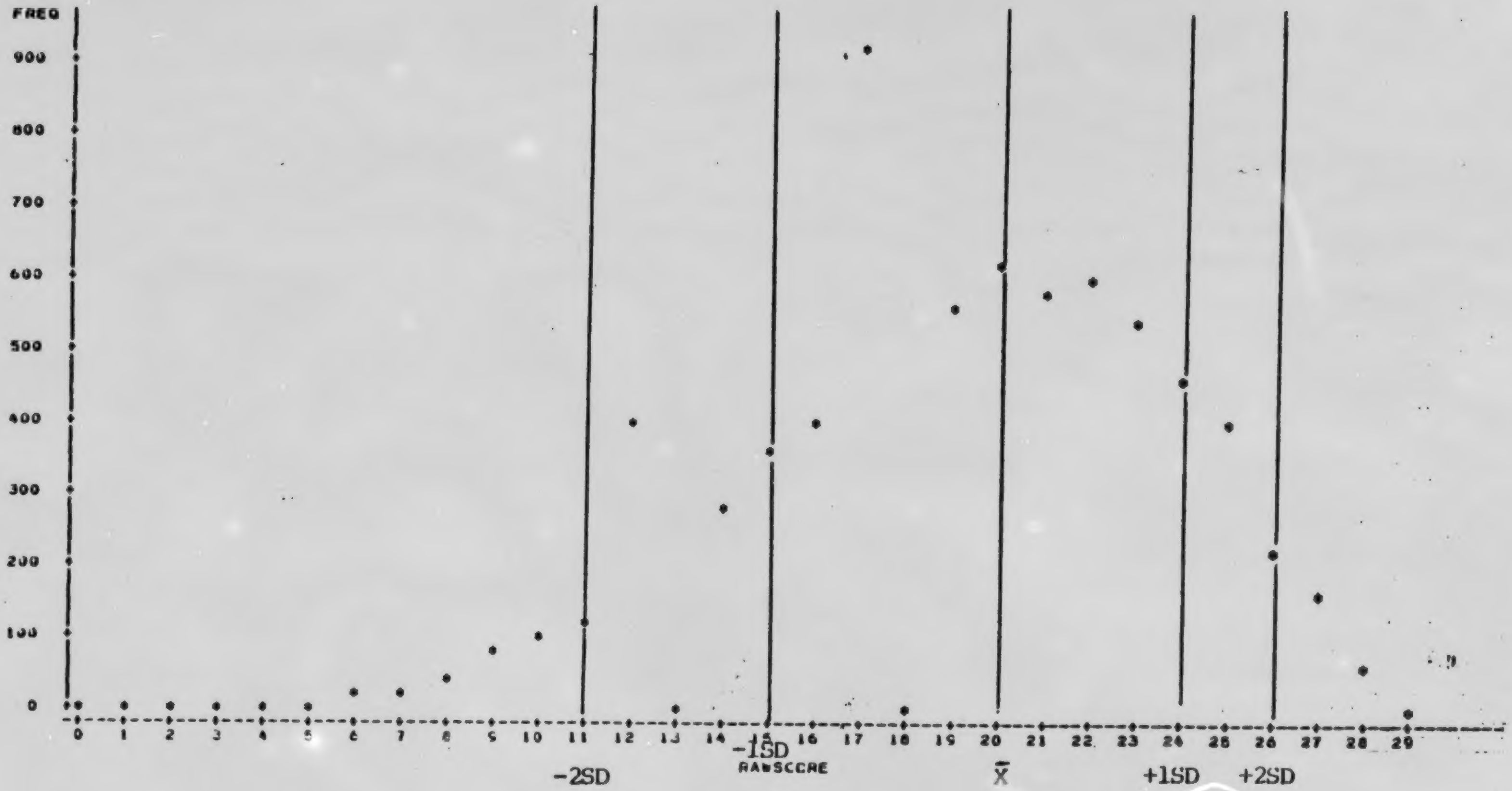


FIGURE 39

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE READING, GRADE 11 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

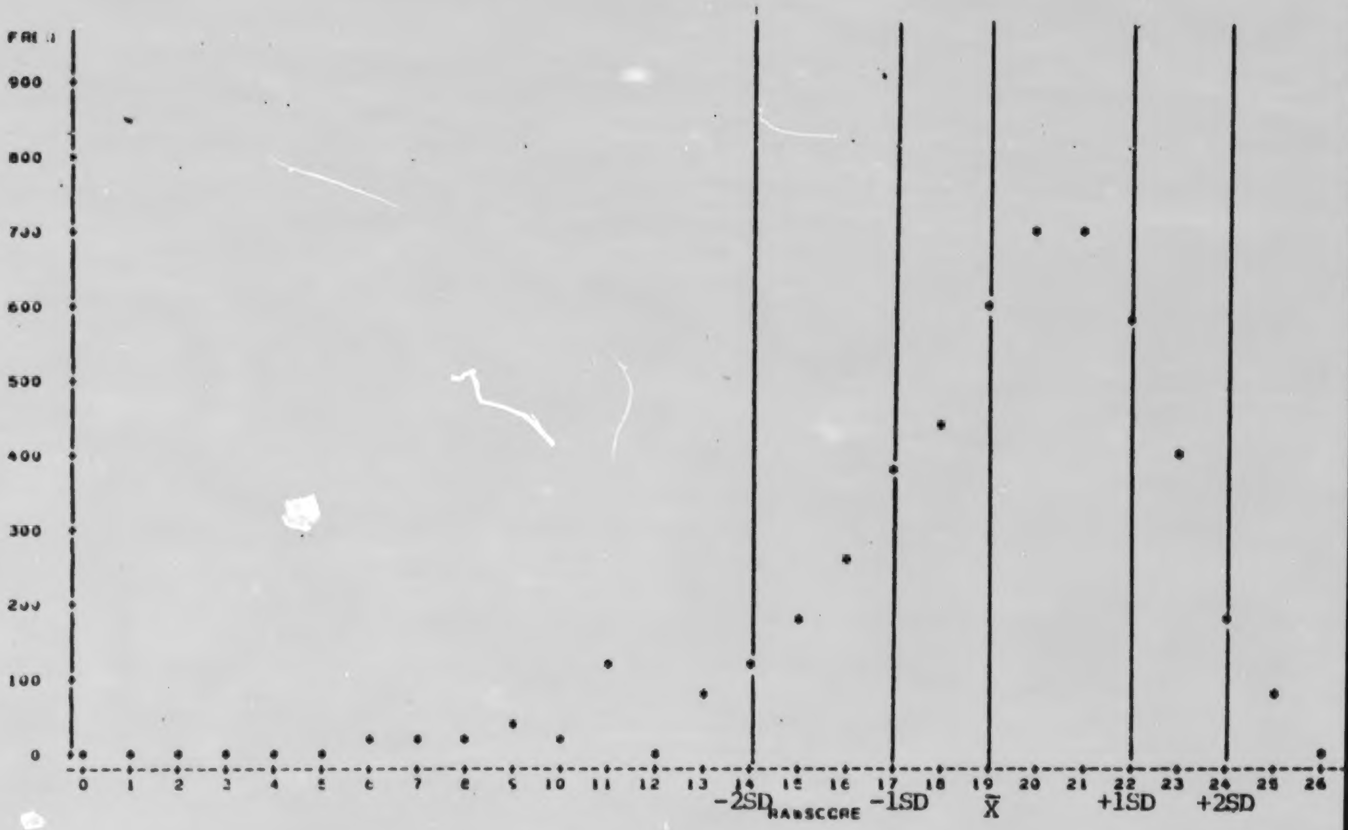


FIGURE 40

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE LANGUAGE ARTS, GRADE 3 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

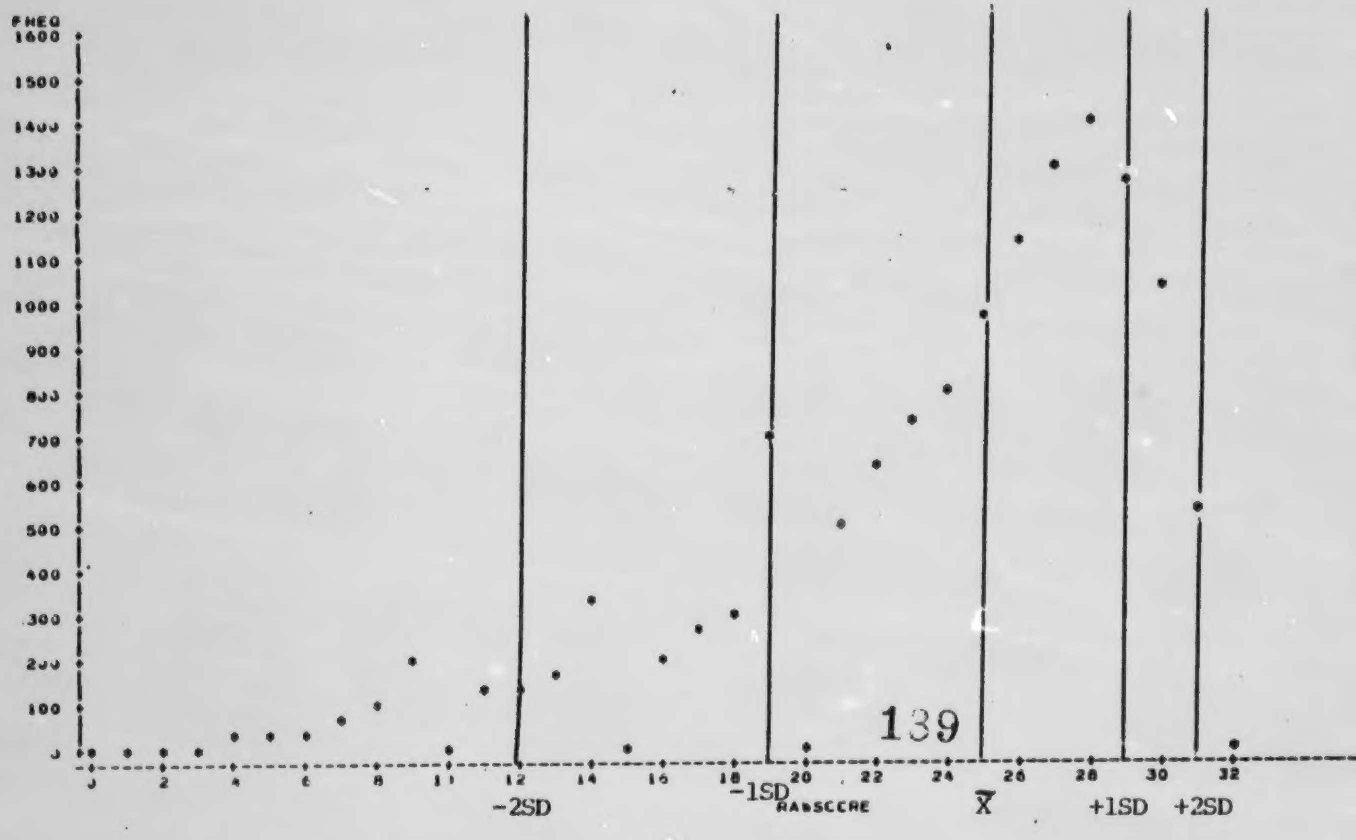


FIGURE 41

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE LANGUAGE ARTS, GRADE 4 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

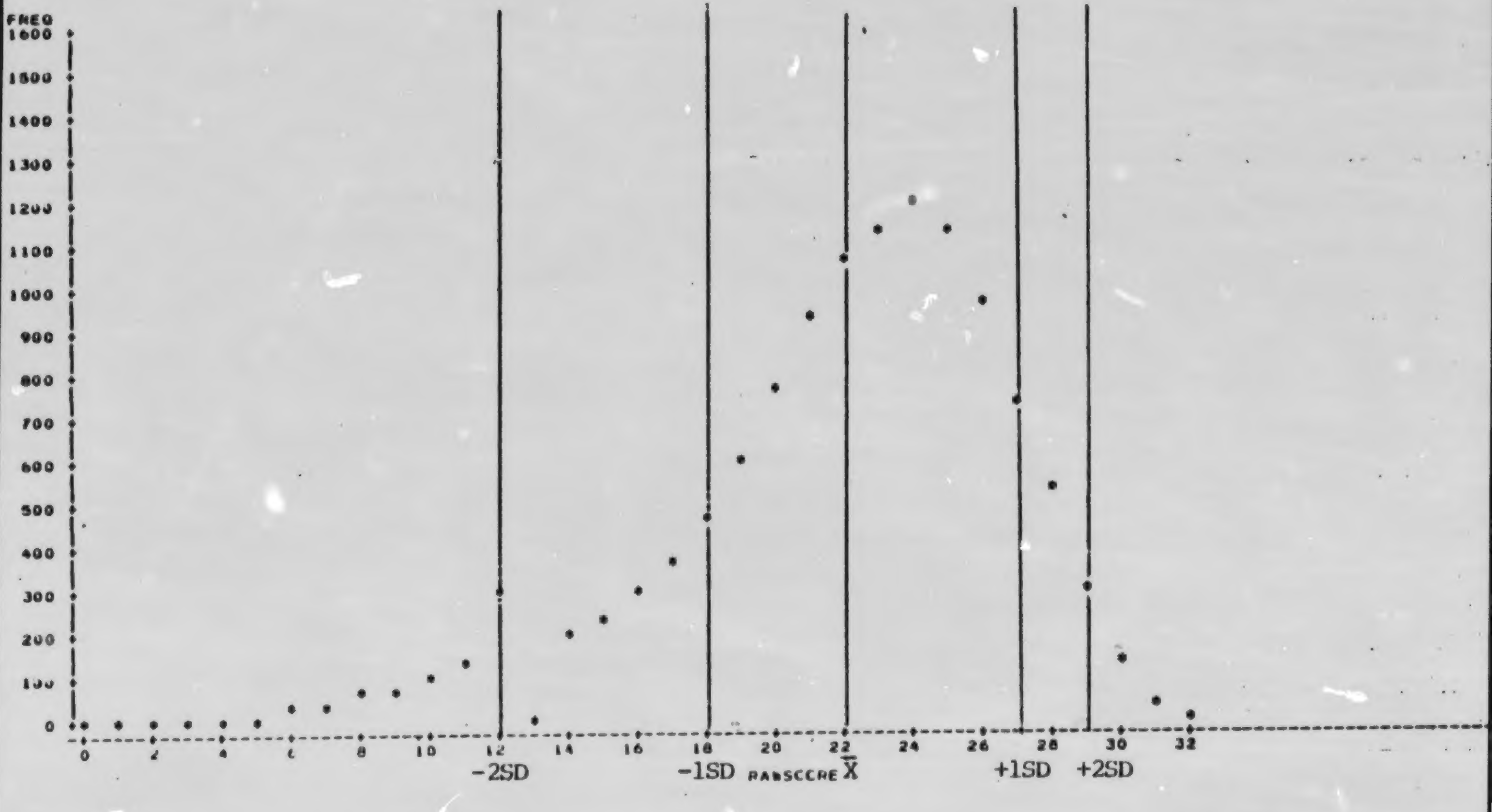


FIGURE 42

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE LANGUAGE ARTS, GRADE 6 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

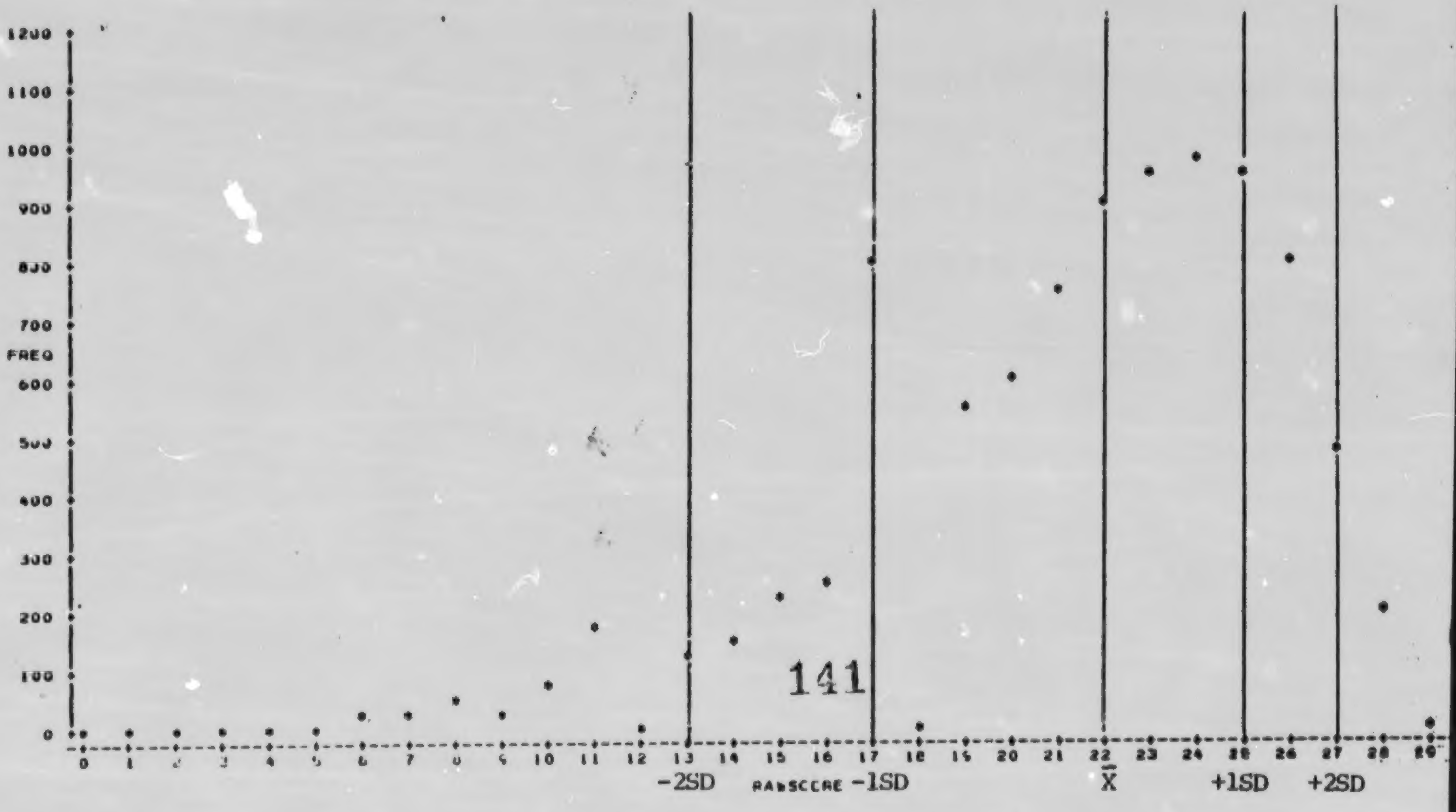


FIGURE 43

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE LANGUAGE ARTS, GRADE 9 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

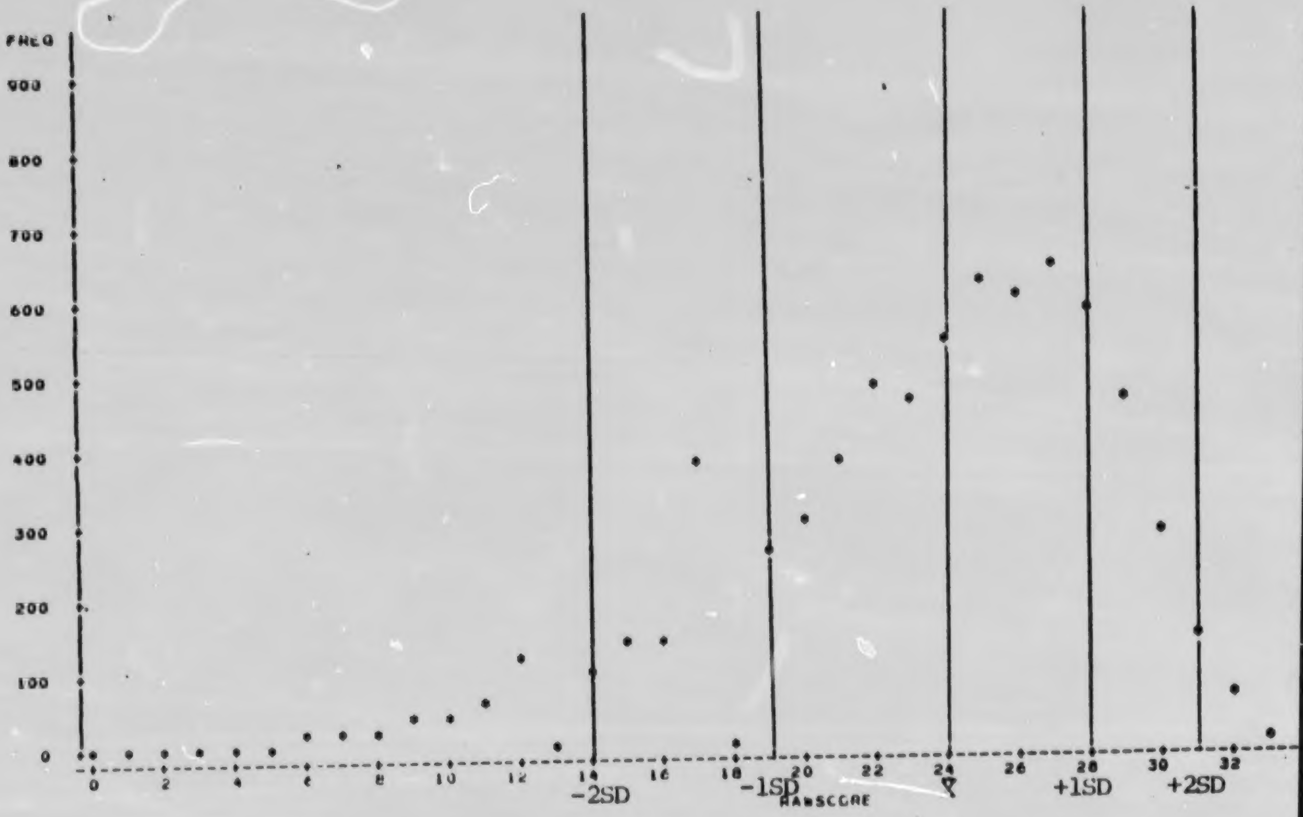


FIGURE 44

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE LANGUAGE ARTS, GRADE 11 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

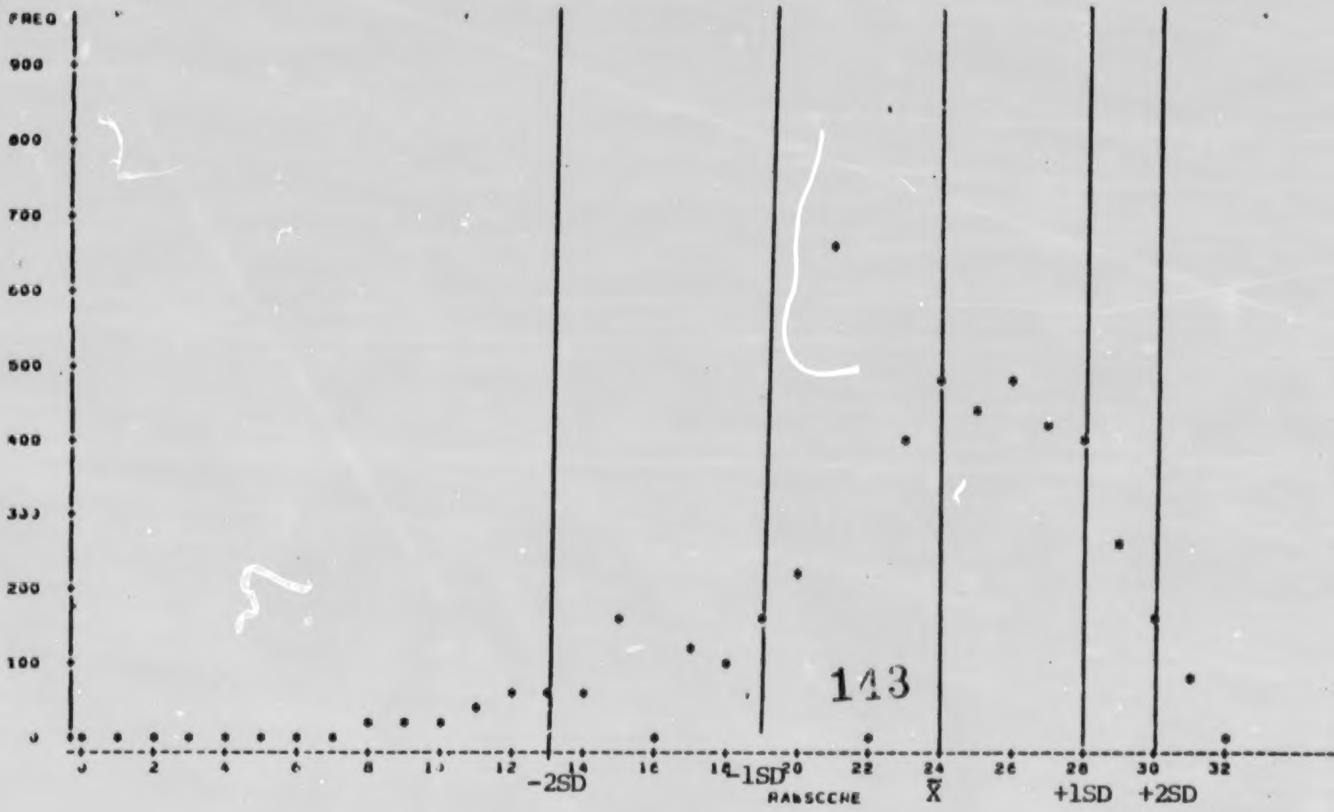


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FIGURE 45

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE MATHEMATICS, GRADE 3 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

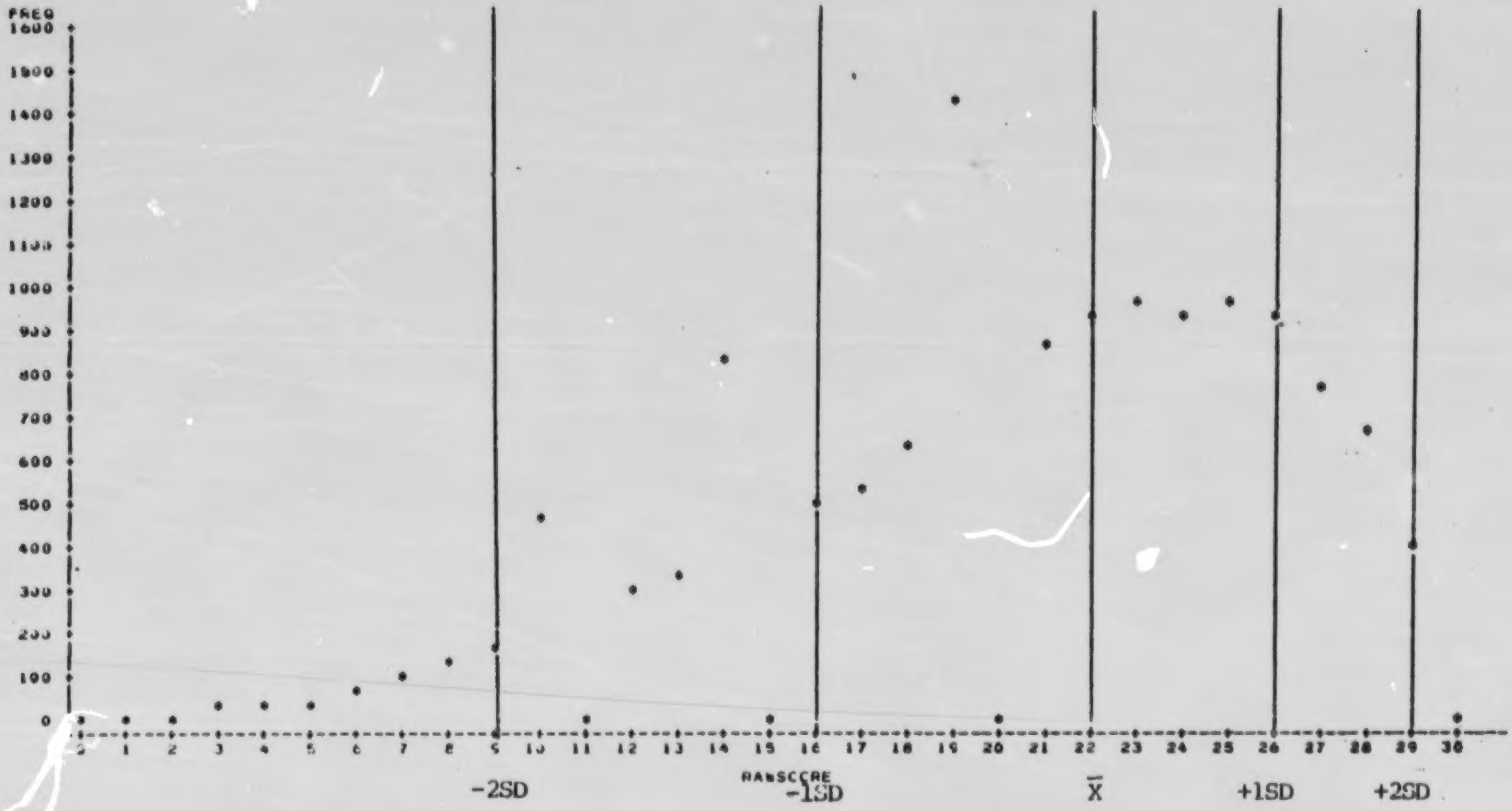


FIGURE 46

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE MATHEMATICS, GRADE 5 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

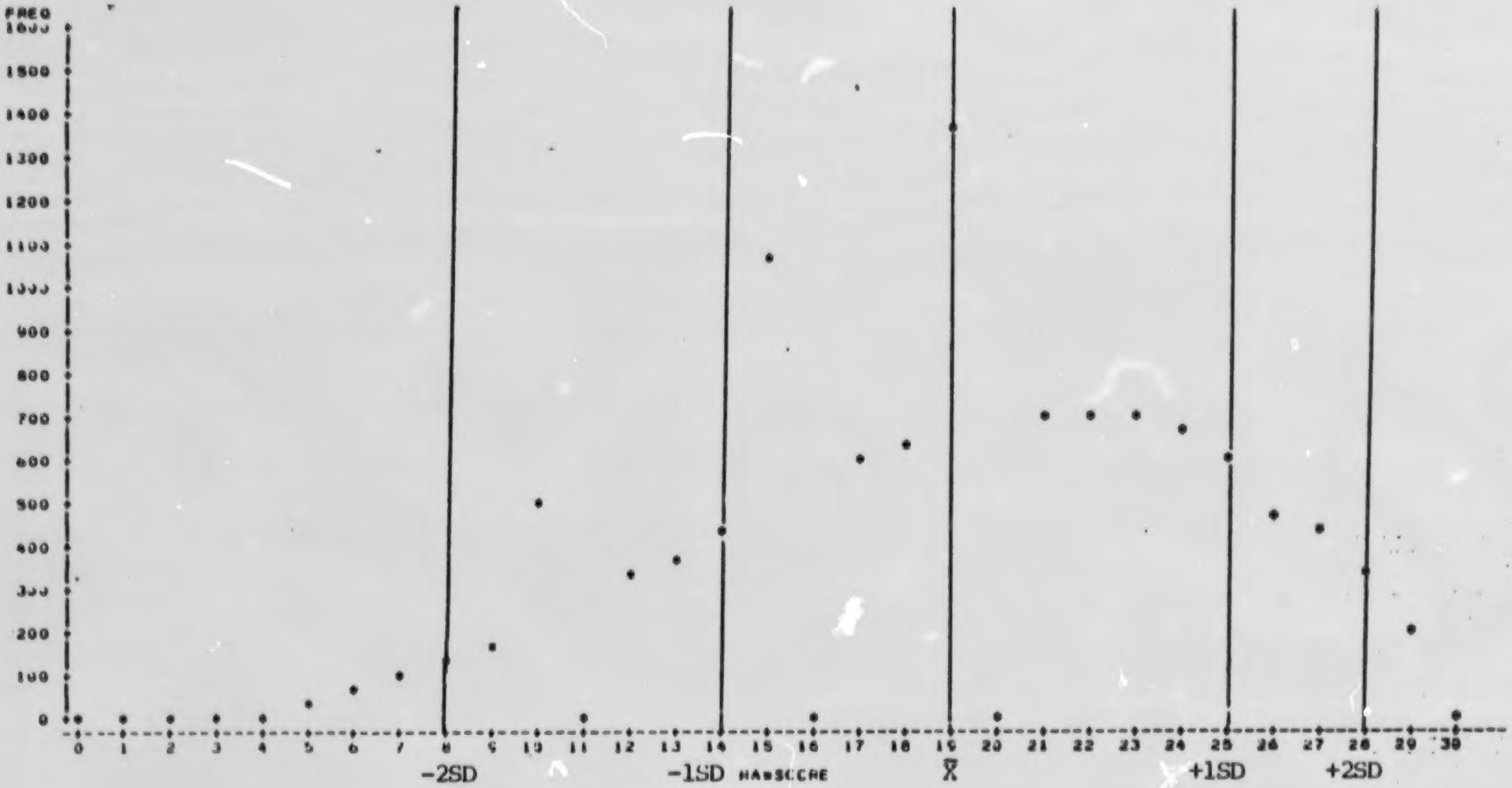


FIGURE 47

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE MATHEMATICS, GRADE 7 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.

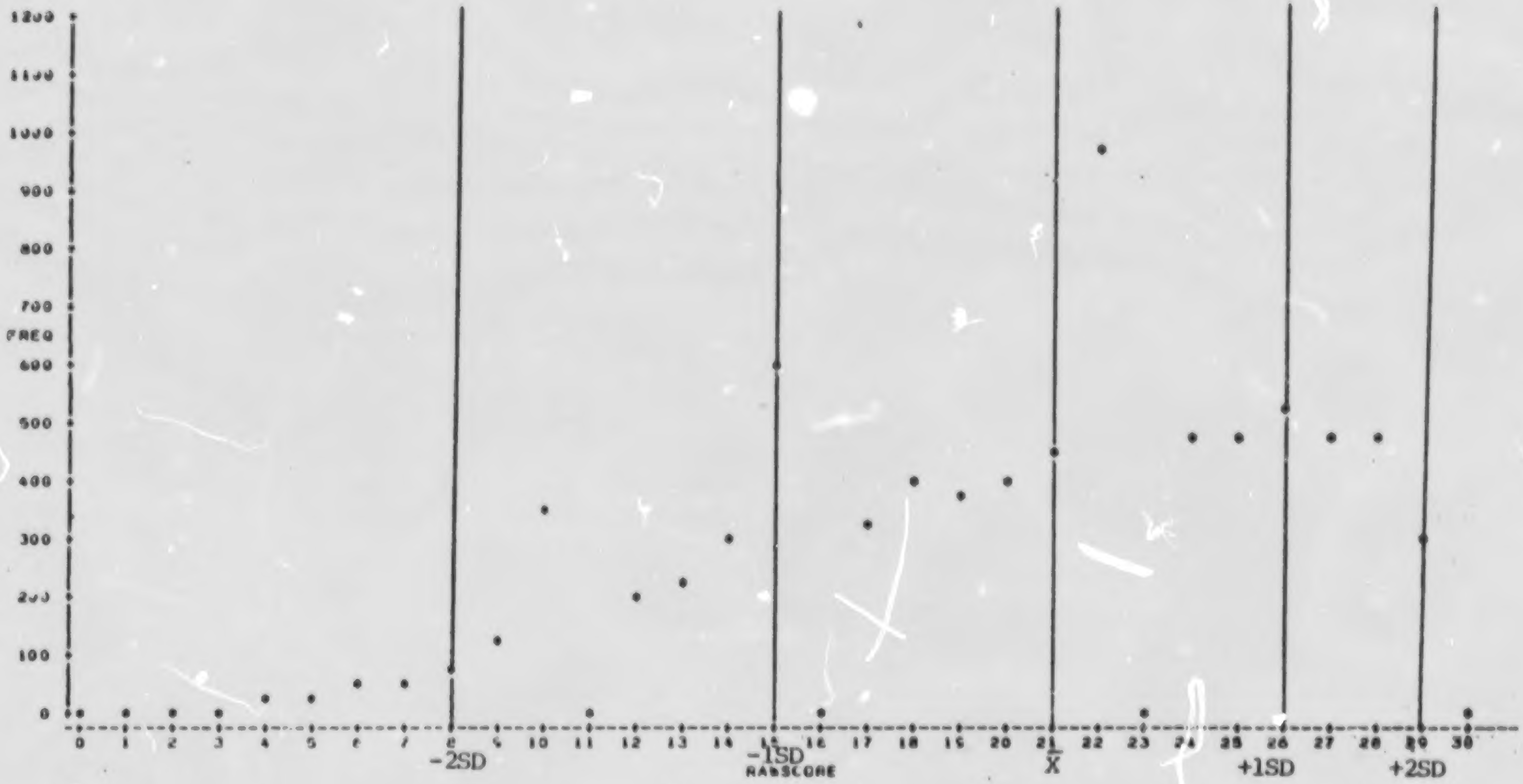
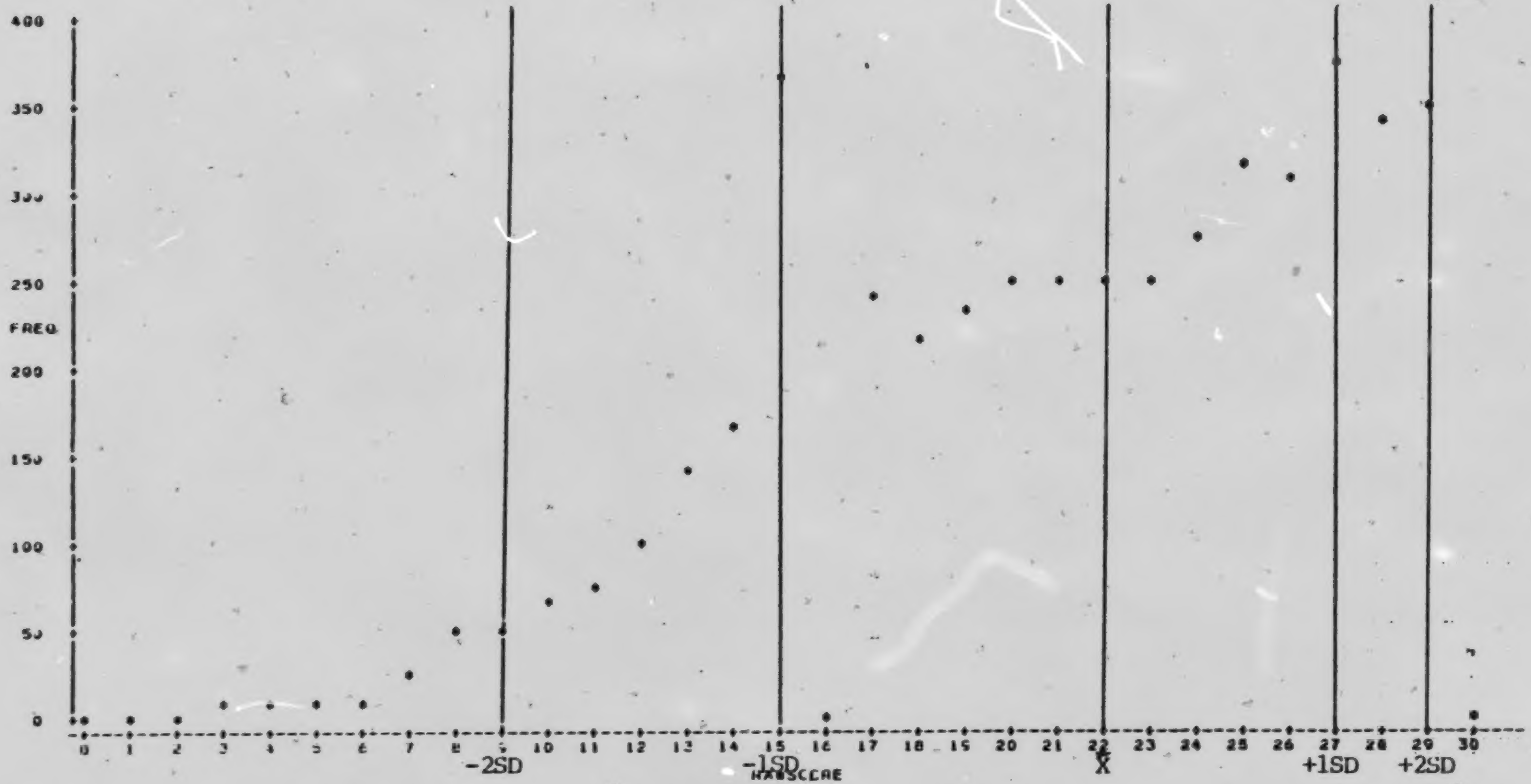


FIGURE 48

FREQUENCY DISTRIBUTION OF RAW SCORES FOR THE MATHEMATICS, GRADE 11 TEST SHOWING THE MEANS AND STANDARD DEVIATIONS.



Comparison Among Grades

The mean scores obtained by all DoDDS students at each grade level are displayed in Table 17. Mean scores increased from grades 3 through 11 on all tests with the exception of reading, grade 4. The variability in performance is greatest at grade 3 and least in grades 9 and 11 for the reading test. This finding is reversed for the mathematics test where variability is greatest for grade 11. Language arts, like reading, has the greatest variability in student performance at grade 3, but least in grade 4.

Comparisons among the three tests (reading, language arts, and mathematics) should not be made, as the calibration samples upon which the Rasch scale scores are based are not equivalent.

The number of students tested decreases across the grades. Approximately 13,294 students participated in the program at grade 3, whereas only 4,983 students were tested in grade 11.

Figures 49-51 display the comparison between the mean score on each of the Basic Skills tests obtained by DoDDS students and the mean scores obtained by the national sample used to calibrate item and test form difficulties for the TDC item bank. DoDDS students outperformed the national calibration sample at all grades and on all test forms. DoDDS mean scores are relatively higher in reading and mathematics than mean language arts scores. This is especially true for reading at grade 3 and mathematics at grade 11.

TABLE 17

Means and Standard Deviations of the Basic Skills Assessment Tests, Spring 1980: By Grade

TEST		GRADE 3	GRADE 4	GRADE 5	GRADE 6	GRADE 7	GRADE 9	GRADE 11
READING	$\overline{X}$	567.6	551.1		590.1		615.5	624.6
	s.d.	60.4	53.4		54.2		43.2	44.5
LANGUAGE ARTS	$\overline{X}$	484.5	510.0		551.6		577.3	591.1
	s.d.	65.4	52.1		54.5		53.8	59.7
MATH	$\overline{X}$	446.6		517.9		582.3		617.1
	s.d.	56.0		52.1		58.7		68.8
TOTAL NUMBER OF STUDENTS		13,294	11,961	10,747	9,310	7,746	6,977	4,983

FIGURE 49

A COMPARISON OF THE DoDDS MEAN SCORES WITH THE TDC ITEM BANK MEAN: READING

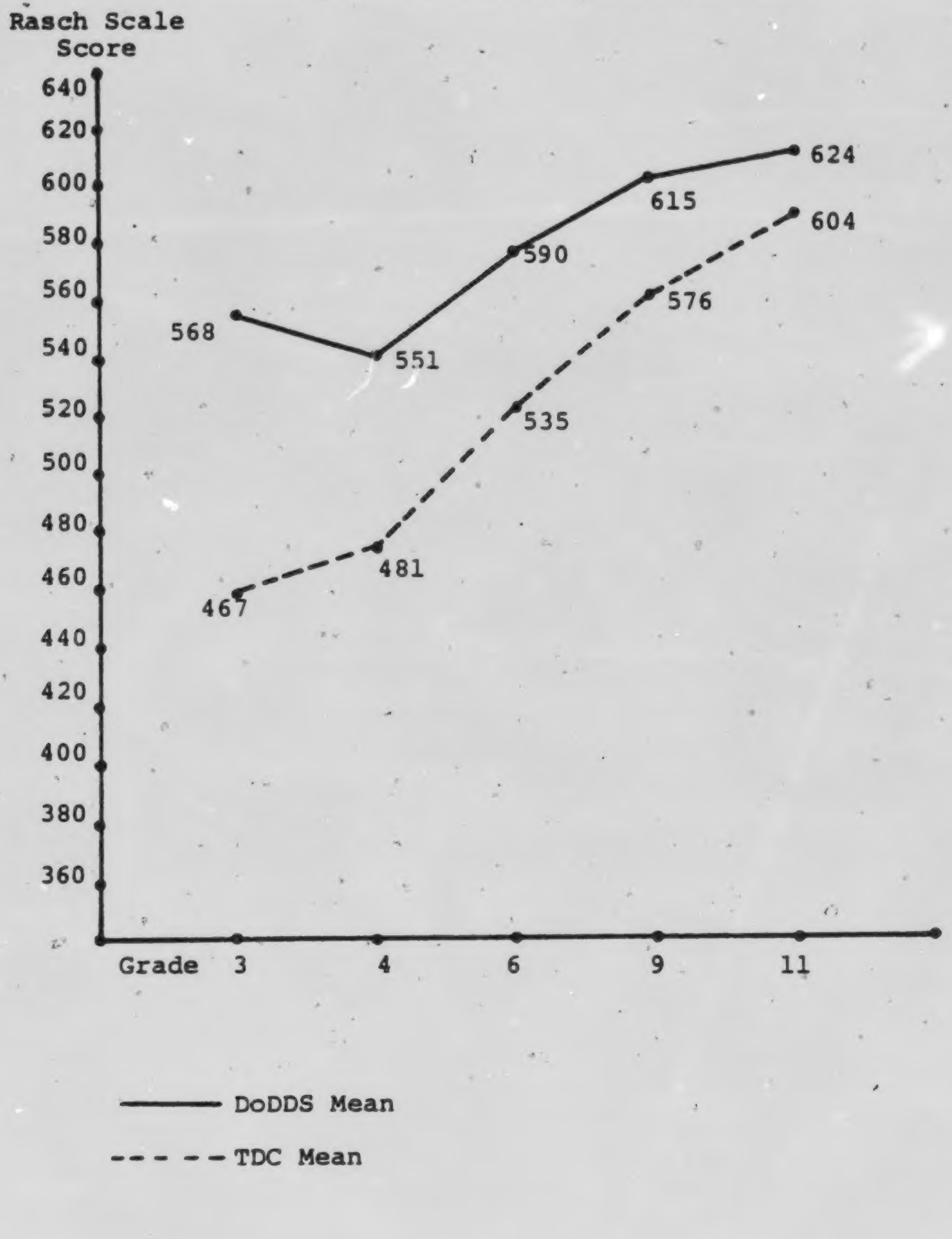


FIGURE 50

A COMPARISON OF THE DoDDS MEAN SCORE WITH THE TDC ITEM BANK MEAN: LANGUAGE ARTS

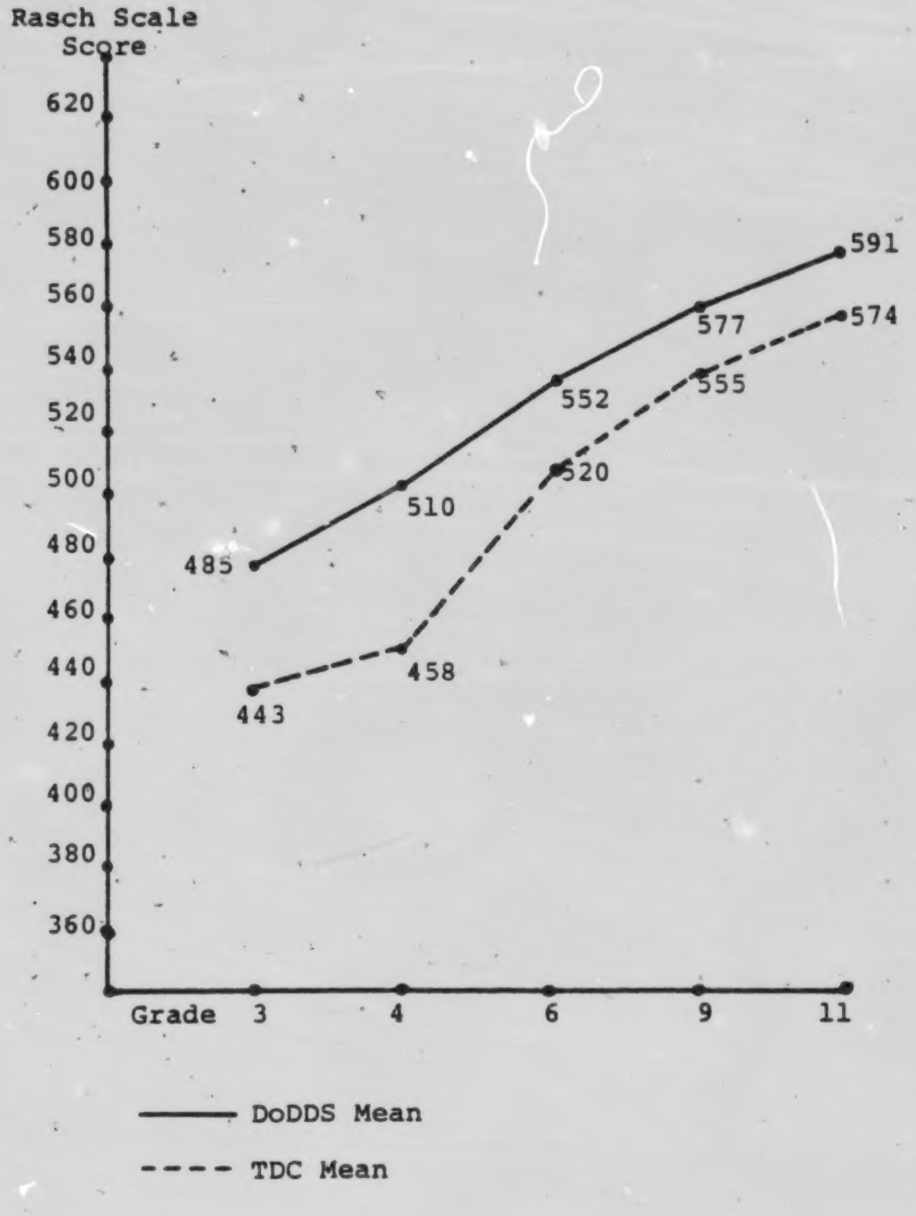
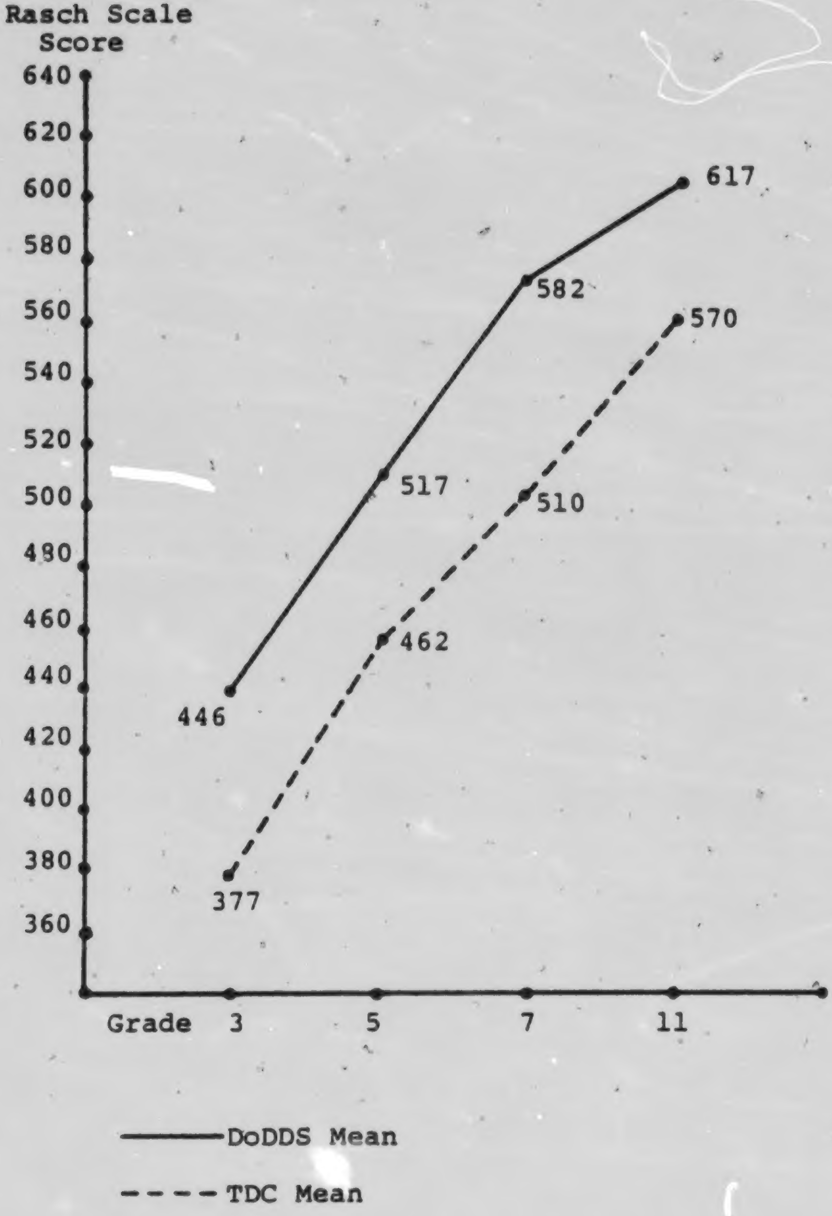


FIGURE 51

A COMPARISON OF THE DoDDS MEAN SCORE WITH THE TDC ITEM BANK MEAN: MATHEMATICS



Comparisons Among Regions

Regional comparisons are displayed in three forms. Tables 18 to 24 show regional means and standard deviations for the reading, language arts, and mathematics tests for each grade. (These mean tables are summarized in Table 24). The means are compared pictorially in Figures 52-54. These figures display the mean score bands encompassing one standard deviation above and below the mean (or approximately 78% of the scores) for each region.

While reviewing the means for each region by grade level, certain trends emerge. The mean differences among the regions on the majority of the Basic Skills tests are slight. While post hoc analysis (using Duncan's Multiple Range Test) shows that the differences between any two regional means at any grade level are statistically significant, the practical or educational significance of these differences is, in most cases, very slight. Considering the fact that regional differences may reflect differences in curricular emphasis, instructional materials, or student population, the similarity of the majority of regional means on any one test at any grade level is quite unusual.

The few regional differences in test results that do occur are seen most clearly in Figures 52 to 54. Figure 52 displays the score bands encompassing the mean and one standard deviation above and below the mean for the reading test at each grade level for each region. Differences among regions and/or grades are identified by locating those score bands that fall outside the DoDDS mean score comparison band. No one region or grade level in reading has distinctively different test performance. There are some differences in regional standard deviations, causing some regional score bands to be wider or narrower than others, but all fall within the DoDDS comparison band.

TABLE 18

Means and Standard Deviations of Basic Skills Assessment Tests, Spring 1980: By Grade and Region - Reading, Language Arts and Mathematics, Grade 3

		ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
READING	$\bar{X}$	570.9	566.6	563.6	568.2	568.9	579.5
	s.d.	61.0	59.3	63.2	58.0	59.0	59.2
LANGUAGE ARTS	$\bar{X}$	484.9	484.3	482.5	485.8	484.1	491.3
	s.d.	70.1	63.1	67.8	63.0	64.2	67.4
MATH	$\bar{X}$	453.1	444.8	442.7	447.6	450.9	448.4
	s.d.	56.1	54.5	60.2	56.1	53.3	50.9
TOTAL	N	1,403	4,561	3,177	1,369	2,058	726

TABLE 19

Means and Standard Deviations of Basic Skills Assessment Tests, Spring 1980: By Grade and Region - Reading and Language Arts, Grade 4

		ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
READING	$\overline{X}$	550.6	553.0	547.4	546.9	553.9	556.2
	s.d.	53.9	52.3	51.5	60.9	52.6	52.7
LANGUAGE ARTS	$\overline{X}$	509.8	511.4	507.1	511.1	510.6	510.6
	s.d.	53.5	51.6	54.5	51.4	48.8	51.3
TOTAL	N	1,324	4,007	2,832	1,278	1,824	696

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TABLE 20

Means and Standard Deviations of Basic Skills Assessment Tests, Spring 1980: By Grade and Region - Mathematics, Grade 5 and 7

		ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
MATH Grade 5	$\bar{X}$	515.6	514.7	508.5	517.9	516.7	513.7
	s.d.	49.5	53.8	51.8	52.9	50.7	49.3
TOTAL	N	1,229	3,469	2,541	1,118	1,727	663
MATH Grade 7	$\bar{X}$	590.4	584.6	576.7	5[illegible]8.6	584.6	562.0
	s.d.	62.0	59.4	59.8	52.6	56.6	53.2
TOTAL	N	989	2,378	1,778	810	1,215	576

TABLE 21

Means and Standard Deviations of Basic Skills Assessment Tests, Spring 1980: By Grade and Region - Reading and Language Arts, Grade 6

		ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
READING	$\overline{X}$	593.2	589.1	584.4	594.1	595.3	589.9
	s.d.	52.7	54.3	56.5	51.9	52.4	55.3
LANGUAGE ARTS	$\overline{X}$	549.7	554.7	540.7	556.3	557.6	556.2
	s.d.	59.6	49.5	64.6	50.9	45.8	49.1
TOTAL	N	1,067	3,005	2,150	1,075	1,439	574

TABLE 22

Means and Standard Deviations of Basic Skills Assessment Tests, Spring 1980: By Grade and Region - Reading and Language Arts, Grade 9

		ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
READING	$\bar{X}$	620.3	616.2	611.8	613.7	619.1	611.7
	s.d.	43.3	42.2	44.3	42.0	42.4	45.5
LANGUAGE ARTS	$\bar{X}$	582.4	576.4	573.4	592.8	582.7	571.1
	s.d.	50.5	55.2	56.1	55.8	52.5	52.9
TOTAL	N	931	2,242	1,668	574	979	583

TABLE 23

Means and Standard Deviations of Basic Skills Assessment Tests, Spring 1980: By Grade and Region - Reading, Language Arts and Mathematics, Grade 11

		ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
READING	X̄	630.2	619.5	625.1	625.3	630.2	624.2
	s.d.	38.6	46.4	48.3	43.3	39.6	41.6
LANGUAGE ARTS	X̄	597.0	582.4	592.1	592.7	600.4	595.2
	s.d.	51.8	67.8	62.0	55.8	49.0	46.6
MATH	X̄	625.6	584.6	613.1	617.2	633.7	623.2
	s.d.	67.6	59.4	72.1	64.6	64.9	64.7
TOTAL	N	695	1,609	1,136	439	640	464

TABLE 24

Mean Scores on Basic Skills Assessment Tests by Grade & Region

READING

Grade	Atlantic	Ger. N.	Ger. S.	Med.	Pac.	Pan.	$\bar{X}$ Grade
3	571	567	564	568	569	579	568
4	551	553	547	547	554	556	551
6	593	589	584	594	595	590	590
9	620	616	612	614	619	612	615
11	630	619	625	625	630	624	625

LANGUAGE ARTS

Grade	Atlantic	Ger. N.	Ger. S.	Med.	Pac.	Pan.	$\bar{X}$ Grade
3	485	484	482	485	484	481	484
4	510	511	507	511	510	511	510
6	550	555	541	556	558	556	552
9	582	576	573	580	583	571	577
11	597	582	592	592	600	595	591

MATHEMATICS

Grade	Atlantic	Ger. N.	Ger. S.	Med.	Pac.	Pan.	$\bar{X}$ Grade
3	453	445	443	447	451	448	447
5	515	515	508	518	517	514	514
7	590	584	577	589	584	562	582
11	626	608	613	617	634	623	617

FIGURE 52

A COMPARISON OF REGIONAL TEST DISTRIBUTIONS WITH DoDDS MEANS AND STANDARD DEVIATIONS: READING

REGIONS		GRADES 3	4	6	9	11
PANAMA	$\overline{X}$	580	556	590	612	624
	S.D.	59	53	55	46	42
PACIFIC	$\overline{X}$	570	554	595	619	630
	S.D.	59	53	52	42	40
MEDITERANEAN	$\overline{X}$	569	547	594	614	625
	S.D.	59	61	52	42	43
GERMANY S.	$\overline{X}$	564	547	584	612	625
	S.D.	63	52	57	44	48
GERMANY N.	$\overline{X}$	567	553	589	616	620
	S.D.	59	52	54	42	46
ATLANTIC	$\overline{X}$	571	551	593	620	630
	S.D.	61	54	53	43	39
TOTAL	$\overline{X}$	568	551	590	616	625
	S.D.	60	53	54	43	45

FIGURE 53

A COMPARISON OF REGIONAL TEST DISTRIBUTIONS WITH DoDDS MEANS AND STANDARD DEVIATIONS: LANGUAGE ARTS

		GRADES				
REGIONS		3	4	6	9	11
PANAMA	$\bar{X}$	491	511	556	571	595
	S.D.	67	51	49	53	47
PACIFIC	$\bar{X}$	484	511	558	583	600
	S.D.	64	42	46	52	49
MEDITTERANEAN	$\bar{X}$	486	511	556	593	593
	S.D.	63	51	51	56	56
GERMANY S.	$\bar{X}$	482	507	541	573	592
	S.D.	68	54	65	56	62
GERMANY N.	$\bar{X}$	484	511	555	576	582
	S.D.	63	62	50	55	68
ATLANTIC	$\bar{X}$	485	510	550	582	597
	S.D.	70	54	60	50	52
TOTAL	$\bar{X}$	484	510	552	577	591
	S.D.	65	52	54	54	60

FIGURE 54

A COMPARISON OF REGIONAL TEST DISTRIBUTIONS WITH DoDDS MEANS AND STANDARD DEVIATIONS: MATHEMATICS

		GRADES			
REGIONS		3	5	7	11
PANAMA	$\bar{X}$	448	514	562	623
	S.D.	51	49	53	65
PACIFIC	$\bar{X}$	451	517	585	634
	S.D.	53	51	57	65
MEDITTERANEAN	$\bar{X}$	448	518	589	617
	S.D.	56	53	53	65
GERMANY S.	$\bar{X}$	443	508	577	613
	S.D.	60	52	60	72
GERMANY N.	$\bar{X}$	445	515	585	585
	S.D.	54	54	59	59
ATLANTIC	$\bar{X}$	453	516	590	626
	S.D.	56	50	62	68
TOTAL	$\bar{X}$	447	518	582	617
	S.D.	56	52	59	69

A comparison of language arts mean score bands for each region and grade with the DoDDS mean score bands, reveals that differences among the regions are negligible and, as in the reading test, appear as differences in variability rather than differences in mean performance. The one exception is Panama at grade 3, with a mean performance of 491 - seven scale points above the DoDDS and regional means.

The few differences in regional performance that do occur in the mathematics tests appear in Figure 54, the mathematics test comparison bands. Regional performance is quite similar in mathematics at grade 3, but beginning in grade 5 differences begin to appear. Germany South is scoring 10 points below the DoDDS mean in grade 5; this region is also below the DoDDS mean in grades 7 and 11, but by fewer points. At grade 7, Panama is scoring 20 points below the DoDDS mean, although at grade 11 students in this region are scoring above the mean. At grade 11, Germany North is scoring 32 points below the DoDDS mean in contrast to grade 9, where students from this region scored above the mean. Both Atlantic and Mediterranean region students scored at, or slightly above the mean across all grades. The Pacific region scored near the mean, either slightly above or below until grade 11, where the mean performance is 634 - 17 points above the DoDDS mean.

These results suggest that a regional examination of mathematics performance and curricular emphasis would be indicated to reveal some of the reasons for the regional differences in mathematics performance.

Comparison Between Sexes

Test performance differences between the sexes was investigated in several ways. The differential performance of females and males on each item in each test was compared. This analysis is described in the preceding chapter under "Issues in Test Bias." Next, the mean test score obtained by females and males on each of the Basic Skills tests at each grade level was compared. This comparison is displayed in Figure 55 for reading and language arts, and Figure 56 for mathematics. Finally, post hoc comparisons of the means for females and males were performed in each region at each grade level on each test. The results of these analyses appear in Tables 25-26. The actual test results for males and females for grade and sex are presented in Tables 27 to 33 ; and for grade, sex and region in Tables 25 to 26.

Figures 55-56 demonstrate that the mean test performance of females was higher than that of males on all tests at all grades with the exception of reading, grade 11 and mathematics, grade 11. These differences were statistically significant, due to the large number of students tested. The educational significance of the female-male test performance differential varies from grade to grade and test to test. If a 10 point score differential is used to identify significant discrepancies between female and male test performance, a review of the following curriculum areas is in order: reading, grades 3 and 4; all of the language arts tests; and, mathematics, grade 11.

It should be emphasized that the systematically higher or lower test performance of females or males is not an indication of test bias. Sex bias occurs in a test only when it can be shown that the same test is assessing different abilities for different sub-populations. These systematic sex differences may be related to differential motivation for test taking between the sexes, teacher-student identification and rapport, curricular emphasis, or misleading test items. The causes of these mean differences are not clear.

Mean test performance by sex and region are summarized in Tables 25 to 26. A post hoc analysis of sex differences was performed for each grade level and by region. There were statistically significant differences in mean test performance for the sexes at each grade level. This difference is displayed in Figures 55-56 discussed previously. Table 26, which presents the regional differences in female-male test performance, highlights some interesting findings. Within any one region, the difference in performance between females and males is statistically significant. When females in any one region are compared to females in another, or males are compared across regions, regional differences within the sexes are also significant (with a few exceptions). For the reading test, members of the same sex perform similarly in the Atlantic and Panama region; the Germany North and South and, Mediterranean. The language arts mean differences within any one sex are significantly different except for Germany North, Mediterranean and, the Pacific. A review of mean differences in mathematics reveals that Atlantic and Panama performed similarly as did the Mediterranean, Pacific and Germany North and South.

TABLE 25

Mean Scores on Basic Skills Assessment Tests by Grade and Sex

READING

Sex	3	4	6	9	11
F	574	558	592	618	623
M	562	544	586	614	626
$\bar{X}$ Grade	568	551	590	616	625

Results of Duncan's Multiple Range Post Hoc Analysis:
All means significantly different

LANGUAGE ARTS

Sex	3	4	6	9	11
F	493	517	559	586	597
M	476	503	545	570	586
$\bar{X}$ Grade	485	510	551	578	591

Results of Duncan's Multiple Range Post Hoc Analysis:
All means significantly different

MATHEMATICS

Sex	3	5	7	11
F	450	516	583	610
M	443	512	581	625
$\bar{X}$ Grade	447	514	583	618

Results of Duncan's Multiple Range Post Hoc Analysis:
All means significantly different

TABLE 26

Mean Scores on Basic Skills Assessment Tests by Region and Sex

READING

Sex	Atlantic	Ger. N.	Ger. S.	Med.	Pac.	Pan.
F	590	585	582	582	587	593
M	584	576	573	577	580	586
$\bar{X}$ Region	586	580	577	579	583	589

Results of Duncan's Multiple Range Post Hoc Analysis:
All differences significant except as noted in text

LANGUAGE ARTS

Sex	Atlantic	Ger. N.	Ger. S.	Med.	Pac.	Pan.
F	541	537	533	536	538	546
M	529	520	518	523	525	533
$\bar{X}$ Region	535	529	526	530	531	539

Results of Duncan's Multiple Range Post Hoc Analysis:
All differences significant except as noted in text

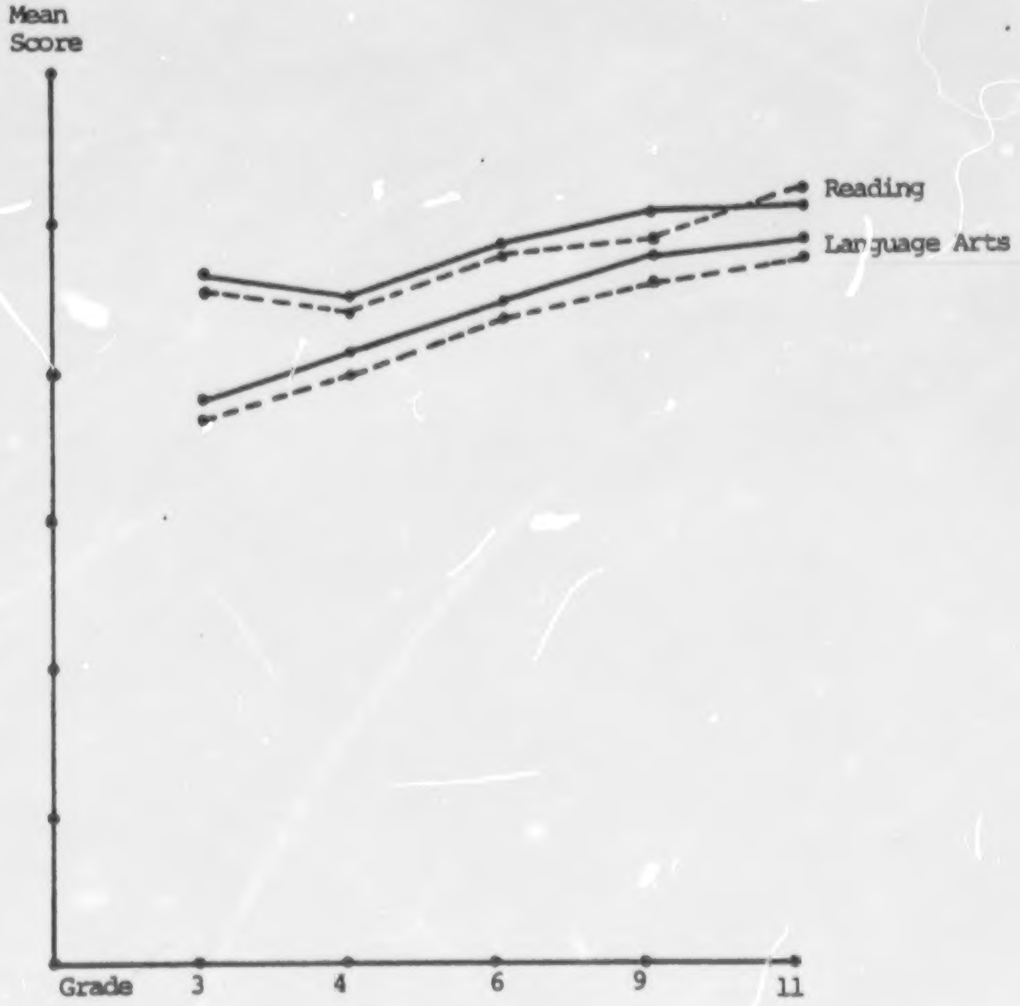
MATHEMATICS

Sex	Atlantic	Ger. N.	Ger. S.	Med.	Pac.	Pan.
F	530	517	515	519	522	525
M	530	511	509	518	520	529
$\bar{X}$ Region	530	527	521	519	514	512

Results of Duncan's Multiple Range Post Hoc Analysis:
All differences significant except as noted in text

FIGURE 55

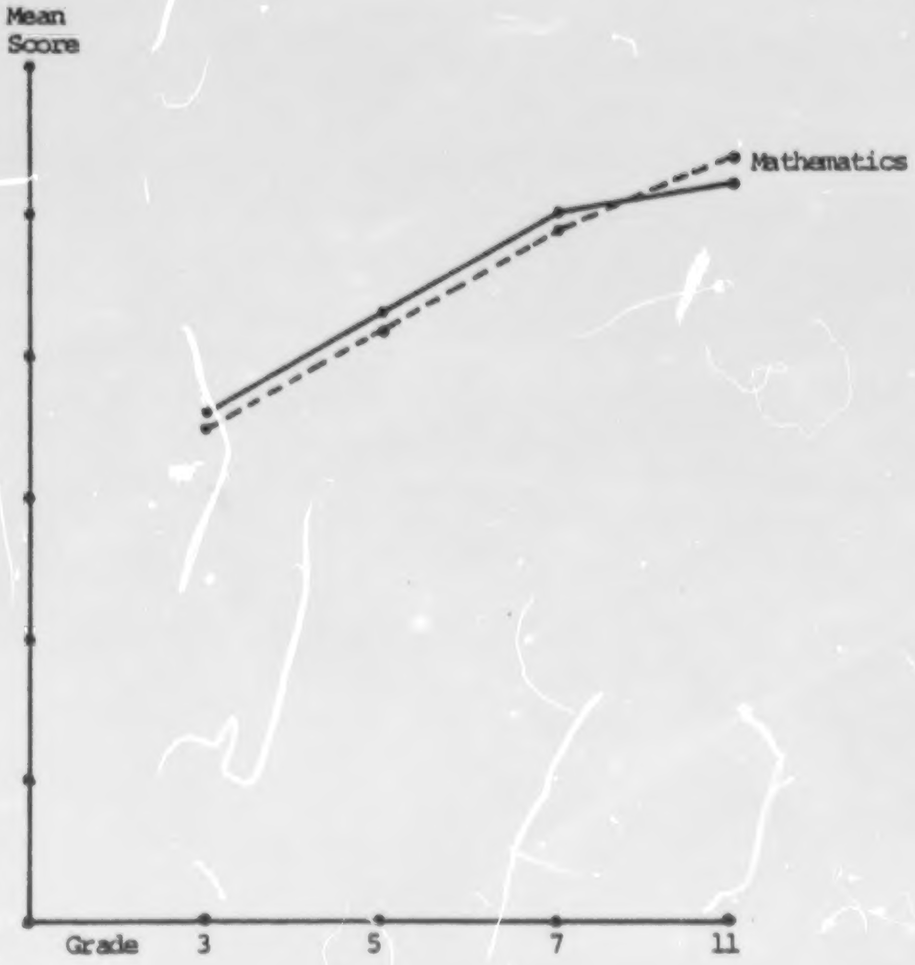
A COMPARISON OF FEMALE-MALE MEAN SCORES ON THE READING AND LANGUAGE ARTS TESTS ACROSS GRADE LEVELS



	Reading		Language Arts	
	Female	Male	Female	Male
3	574	562	493	476
4	558	544	517	503
6	592	586	559	545
9	618	514	586	570
11	623	626	597	586

FIGURE 56

A COMPARISON OF FEMALE-MALE MEAN SCORES ON THE MATHEMATICS TEST ACROSS GRADE LEVELS



	Female	Male
3	450	443
5	516	512
7	584	581
11	610	625

TABLE 27

Means and Standard Deviations for Basic Skills Assessment Tests, Spring 1980: By Grade and Sex

TEST			GRADE 3	GRADE 4	GRADE 5	GRADE 6	GRADE 7	GRADE 9	GRADE 11
READING	F	$\overline{X}$	573.8	558.4		592.1		617.8	623.5
		s.d.	57.7	52.6		53.0		43.3	43.0
		N	6,404	5,841		4,569		3,376	2,399
	M	$\overline{X}$	562.1	544.4		588.5		613.8	626.6
		s.d.	62.0	52.8		54.9		42.6	44.7
		N	6,745	6,043		4,687		3,506	2,487
LANGUAGE ARTS	F	$\overline{X}$	493.0	517.2		558.7		585.0	596.9
		s.d.	62.8	49.4		53.8		52.1	56.8
		N	6,404	5,841		4,569		3,376	2,399
	M	$\overline{X}$	476.6	503.5		545.2		569.6	586.4
		s.d.	66.8	53.2		53.8		53.5	61.2
		N	6,745	6,043		4,687		3,506	2,487
MATH	F	$\overline{X}$	450.3		516.3		583.6		610.3
		s.d.	54.2		50.7		57.1		65.3
		N	6,404		5,186		3,803		2,399
	M	$\overline{X}$	443.3		516.3		581.2		624.9
		s.d.	57.2		50.7		60.4		71.0
		N	6,745		5,186		3,863		2,487

TABLE 28

Means and Standard Deviations for Basic Skills Assessment Tests, Spring 1980: By Grade, Sex, and Region - Reading, Language Arts and Mathematics, Grade 3

			ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
READING	F	$\bar{X}$	577.2	572.7	570.7	571.9	574.9	587.1
		s.d.	58.9	56.2	60.8	55.8	57.0	53.8
		N	684	2,171	1,526	672	1,001	350
	M	$\bar{X}$	565.3	561.5	557.3	565.3	563.5	572.0
		s.d.	61.6	61.5	64.6	59.1	60.2	63.2
		N	708	2,365	1,622	684	1,014	352
LANGUAGE ARTS	F	$\bar{X}$	494.1	493.5	490.9	492.5	491.7	502.2
		s.d.	66.3	59.5	66.6	63.3	61.9	59.7
		N	684	2,171	1,326	672	1,001	350
	M	$\bar{X}$	477.0	476.2	474.9	479.3	477.1	479.8
		s.d.	72.0	65.2	67.9	62.0	65.4	73.4
		N	708	2,365	1,622	684	1,014	352
MATH	F	$\bar{X}$	455.9	449.2	446.8	449.4	455.0	450.3
		s.d.	56.2	52.4	58.4	56.3	50.7	46.6
		N	684	2,171	1,526	672	1,001	350
	M	$\bar{X}$	451.2	440.9	439.2	445.5	447.3	446.1
		s.d.	56.2	52.4	58.4	56.3	50.7	46.6
		N	708	2,365	1,622	684	1,014	352

TABLE 29

Means and Standard Deviations for Basic Skills Assessment Tests, Spring 1980: By Grade, Sex, and Region - Reading and Language Arts, Grade 4

			ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
READING	F	$\bar{X}$	559.2	560.2	555.2	551.9	561.6	563.1
		s.d.	53.5	51.6	50.1	60.5	51.9	52.1
		N	647	1,975	1,401	615	852	351
	M	$\bar{X}$	542.9	546.1	540.2	542.7	547.2	549.3
		s.d.	51.9	52.0	51.4	59.8	52.0	52.5
		N	666	2,012	1,415	648	961	341
LANGUAGE ARTS	F	$\bar{X}$	517.2	519.1	515.8	516.8	516.6	514.6
		s.d.	50.8	48.4	52.2	48.6	45.8	50.8
		N	647	1,975	1,401	615	852	351
	M	$\bar{X}$	503.1	504.2	499.2	505.9	505.6	507.3
		s.d.	54.2	53.3	54.9	52.7	50.5	51.2
		N	666	2,012	1,415	648	961	341

TABLE 30

Means and Standard Deviations for Basic Skills Assessment Tests, Spring 1980: By Grade, Sex, and Region - Mathematics, Grade 5 and 7

			ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
MATH GRADE 5	F	$\bar{X}$	418.7	517.4	510.9	519.1	519.0	514.3
		s.d.	47.5	53.1	49.4	51.4	48.6	50.6
		N	579	1,672	1,217	539	852	327
	M	$\bar{X}$	513.8	512.4	506.7	516.7	514.7	513.1
		s.d.	49.5	54.1	53.4	54.6	52.4	48.3
		N	638	1,782	1,290	571	866	335
MATH GRADE 7	F	$\bar{X}$	592.5	585.9	579.8	587.2	583.9	565.2
		s.d.	61.9	57.7	56.6	50.6	55.5	54.7
		N	467	1,173	895	394	589	285
	M	$\bar{X}$	589.0	583.2	573.5	590.2	585.4	560.4
		s.d.	62.6	61.1	62.8	54.6	57.8	51.2
		N	511	1,175	876	407	614	280

TABLE 31

Means and Standard Deviations for Basic Skills Assessment Tests, Spring 1980: By Grade, Sex, and Region - Reading and Language Arts, Grade 6

			ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
READING	F	$\overline{X}$	593.3	592.4	587.0	594.6	547.1	590.6
		s.d.	51.8	52.5	54.3	53.0	52.9	52.9
		N	521	1,479	1,038	538	709	284
	M	$\overline{X}$	594.5	586.5	582.0	594.2	593.9	588.9
		s.d.	51.6	55.3	58.4	50.9	51.2	57.4
		N	537	1,508	1,102	529	722	289
LANGUAGE ARTS	F	$\overline{X}$	555.2	562.6	547.3	562.5	564.8	563.5
		s.d.	61.4	47.4	65.3	48.8	43.6	49.2
		N	521	1,479	1,038	538	709	284
	M	$\overline{X}$	545.5	547.5	534.6	550.8	550.8	548.7
		s.d.	55.8	49.6	63.3	51.4	46.7	47.6
		N	537	1,508	1,102	529	722	289

TABLE 32

Means and Standard Deviations for Basic Skills Assessment Tests, Spring 1980: By Grade, Sex, and Region - Reading and Language Arts, Grade 9

			ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
READING	F	$\bar{X}$	619.5	620.2	613.6	615.7	620.2	615.8
		s.d.	42.0	40.9	46.7	43.2	42.9	44.4
		N	433	1,103	812	279	455	297
	M	$\bar{X}$	621.2	612.5	610.8	611.8	619.2	608.5
		s.d.	44.4	42.3	41.7	40.9	41.6	44.8
		N	481	1,109	836	289	505	286
LANGUAGE ARTS	F	$\bar{X}$	388.5	586.7	581.7	589.0	590.8	581.0
		s.d.	45.8	54.7	53.5	48.5	52.1	49.3
		N	433	1,103	812	279	455	294
	M	$\bar{X}$	578.5	566.6	566.2	572.0	576.7	561.4
		s.d.	51.1	53.3	57.3	46.2	51.5	54.7
		N	481	1,109	836	289	505	286

TABLE 33

Means and Standard Deviations for Basic Skills Assessment Tests, Spring 1980: By Grade, Sex, and Region - Reading, Language Arts and Mathematics, Grade 11

			ATLANTIC	GER.N.	GER.S.	MEDIT.	PACIFIC	PANAMA
READING	F	$\bar{X}$	630.4	619.5	623.4	625.6	623.9	625.7
		s.d.	32.5	44.4	46.6	45.9	39.3	43.1
		N	326	788	556	218	312	199
	M	$\bar{X}$	629.8	620.3	628.8	625.1	638.0	623.2
		s.d.	43.8	47.0	47.3	41.0	37.8	40.5
		N	351	792	558	213	309	264
LANGUAGE ARTS	F	$\bar{X}$	604.2	588.1	598.4	596.0	604.5	604.0
		s.d.	47.1	63.9	58.3	55.3	48.7	45.6
		N	326	788	536	218	312	199
	M	$\bar{X}$	590.0	577.3	587.8	590.4	598.3	588.5
		s.d.	55.4	71.0	63.3	54.3	48.2	46.3
		N	351	792	558	213	309	264
MATH	F	$\bar{X}$	614.7	603.3	607.0	611.6	625.0	615.5
		s.d.	66.5	63.2	67.1	70.0	62.1	63.9
		N	326	788	556	218	312	199
	M	$\bar{X}$	635.9	613.5	621.1	523.4	645.6	629.1
		s.d.	67.3	73.3	75.9	59.8	65.6	64.9
		N	351	792	558	213	309	264

Comparisons by Demographic Characteristics of Examinees

The results of the student questionnaires described in Chapter 3 were used to investigate possible relationships between the self-reported demographic characteristics of the sample and test performance. Three student background variables were of interest in this study: home language, years in DoDDS school, and rank of sponsor. The apparent relationships reported in this section are indicative of areas in which further research is needed; results do not define causal relationships. Similarly, even where there is an apparently strong indication that a demographic variable is associated with some level of test performance, it must be remembered that the *amount* of test performance explained by this variable may *still* be very slight. An examination of the analysis of variance results (appended in Appendix 4) for the variables, years in DoDDS, and rank of sponsor will reveal the amount of variation accounted for by the two variables combined. The effect of any *one* of these variables cannot be determined from the results of this study.

Home Language - Examinees were divided into two home language categories. Respondents answering "yes" to the, "Is English predominant in your home?" question were classified as "English" predominant home students. Those responding "no" are referred to as "non-English" predominant home students. Although this discussion refers to English and non-English student groups, it must be remembered that these labels apply to how the students have classified language use in their *homes*; these terms do not apply to student language use in the schools.

A chi-square analysis was performed for each of the fourteen Basic Skills tests at each grade level in order to examine the frequency distributions and percentage of students in each of the two home language categories scoring at predetermined test levels: more than one standard deviation above the mean; between the mean and one standard deviation above; between the mean and one standard deviation below; and, more than one standard deviation below the mean.

Table 34 displays the percent of students from non-English predominant homes in each region and at each grade level. In the Atlantic and Pacific regions, the percentage of non-English predominant home students decreases between grades 3 and 11. For Germany North and the Mediterranean, there is an increase in the percentage of students from non-English predominant homes. Germany South has a fairly steady percentage across the grades, while Panama evidences a fluctuating pattern with highs at grades 3 and 11. It must be remembered that since fewer students were tested in the secondary grades, the impact of potential non-English

TABLE 34

Number and Percent of Students in Each Region and at Each Grade Level who Report they are From Predominantly Non-English Speaking Homes

REGION	GRADE	3	4	5	6	7	9	11
ATLANTIC	%	4	4	3	3	4	3	2
	N	55	52	37	29	42	32	13
GERMANY NORTH	%	5	5	5	6	7	7	7
	N	233	218	158	168	170	162	104
GERMANY SOUTH	%	7	8	7	7	8	8	8
	N	20	224	180	150	138	126	94
MEDITERRANEAN	%	11	10	10	11	11	12	15
	N	144	128	109	118	88	68	67
PACIFIC	%	15	12	12	10	10	10	7
	N	313	206	197	40	95	119	46
PANAMA	%	24	18	22	17	20	19	23
	N	169	119	141	86	108	116	107

proficient students at these levels is greater than at the elementary grades. There are actually a larger number of students from non-English predominant homes in the elementary grades, but their percentage is lower than in the secondary grades.

The question of interest in the analysis of the home language/ test performance relationship was: is there any evidence that students from predominantly non-English speaking homes do worse on Basic Skills tests than do students from predominantly English speaking homes? This question was examined in two ways. Students in the lowest scoring test group, those scoring more than one standard deviation below the mean, were identified. Then the percentage of students from predominantly English versus non-English speaking homes was reviewed. The results of this analysis appear in Table It is clear that the proportion of students in the lowest scoring group who come from predominantly non-English speaking homes differs most by grade and region. Although actual proportions of students from non-English predominant homes differ among the reading, language arts, and mathematics tests, the trends for any one region remain the same. If the regions were ranked according to the percentage of students from non-English speaking homes appearing in the group of low scoring examinees, the largest percentages would occur in Panama, followed by the Pacific, Mediterranean, Germany South, Germany North, and Atlantic. The proportions of students from predominantly non-English speaking homes should be compared to the proportions of non-English homes reported for any one region before a determination on whether these percentages are inordinately large is made.

In order to determine whether the number of students from predominantly non-English speaking homes in the low scoring groups is disproportionate, one must compare Tables 34 and 35 a-c. This comparison is made by calculating the number of students from non-English predominant homes in the low scoring group from Table 35, then finding the total number of non-English predominant home students for that region and grade level in Table 34. A new proportion is then calculated which determines the proportion of low scoring students from non-English predominant homes to the total number of non-English predominant home students for that region and grade. This proportion, when compared across regions and/or grades, will indicate whether certain regions or grades have a disproportionate number of students from predominantly non-English speaking homes doing poorly on a particular test. For example, in comparing the region with the smallest percentage of students from predominantly

TABLE 35 a-b

Percent of Students from Predominantly Non-English Speaking Homes in the Lowest Score Group (More than one Standard Deviation Below the Mean).

READING

				Grades		
a. Region		3	4	6	9	11
ATLANTIC	% non-English	8	8	9	6	4
	Total group size	218	156	169	121	93
GERMANY NORTH	% non-English	6	9	9	12	16
	Total group size	678	502	436	319	201
GERMANY SOUTH	% non-English	11	13	13	13	17
	Total group size	561	406	285	217	99
MEDITERRANEAN	% non-English	15	12	17	27	23
	Total group size	231	130	171	86	48
PACIFIC	% non-English	17	17	20	30	13
	Total group size	318	230	233	123	86
PANAMA	% non-English	41	38	31	31	44
	Total group size	121	92	81	90	66

LANGUAGE ARTS

				Grades		
b. Region		3	4	6	9	11
ATLANTIC	% non-English	7	10	5	2	5
	Total group size	184	144	84	125	75
GERMANY NORTH	% non-English	6	8	19	10	15
	Total group size	700	499	379	257	179
GERMANY SOUTH	% non-English	11	12	11	14	13
	Total group size	485	346	202	208	91
MEDITERRANEAN	% non-English	16	12	15	21	15
	Total group size	184	144	116	72	39
PACIFIC	% non-English	19	19	14	30	19
	Total group size	292	279	209	150	73
PANAMA	% non-English	41	31	37	26	33
	Total group size	99	86	68	71	67

TABLE 35c
(continued)

MATHEMATICS

Region		Grades 3	 5	 7	 11
ATLANTIC	% non-English	5	2	9	6
	Total group size	204	161	159	105
GERMANY NORTH	% non-English	7	5	10	11
	Total group size	730	454	419	247
GERMANY SOUTH	% non-English	10	8	7	12
	Total group size	516	392	225	136
MEDITERRANEAN	% non-English	13	10	16	20
	Total group size	196	163	116	50
PACIFIC	% non-English	13	13	16	13
	Total group size	334	246	212	90
PANAMA	% non-English	30	24	31	33
	Total group size	112	83	77	69

non-English speaking homes, Atlantic; and Panama with the largest, this relationship can be seen.

On the grade 11 Reading Test, 4% or 4 students from predominantly non-English speaking homes fell into the lowest test score group in the Atlantic region; 44% or 29 students fell into this group in Panama. For the Atlantic region, these 4 students constitute 31% of the total number of students (13) reporting non-English predominant homes (Table 35). In Panama, however, the low scoring 29 students constitute only 27% of the 107 students from non-English predominant homes. Thus, while at first glance it appears that Panama has a disproportionate number of students from non-English predominant homes in the low scoring group in Reading at grade 11, further investigation reveals that Atlantic also has a large proportion (for the size of the group) of students in this lowest score category. These comparisons should be performed before determining that any one region has more low scoring students from non-English predominant homes than any other.

A final investigation of the relationship between home language and test performance was the determination of within-group proportions of students scoring more than one standard deviation below the mean on a Basic Skills test. Thus, for any one home language group, English or non-English, the percent of students falling more than one standard deviation below the mean should be about the same if language is not a factor in test performance. Tables 36-38 display the percent of students scoring one standard deviation below the mean that come from predominantly English and non-English homes. A review of this table will reveal whether members of any one group (English versus non-English) are disproportionately represented among the low scores. For example, an examination of the proportion of low scoring students in grade 7 mathematics reveals that in the Atlantic region, 15% of the English predominant home students and 33% of the non-English predominant home students fell into the lowest score group. This is in contrast to results for grade 7 in Germany South, where only 11% of the non-English predominant home students fell into the lowest group, while from the English group 13% of the students were low scorers. The actual number of students that these percentages represent can be found by multiplying the percentage figure by the number of students in the appropriate group, either English for English proportions or non-English for non-English proportions. Since the group sizes differ, these proportions represent very different numbers of students in each region and at each grade level.

The relationship between the lowest scoring students from predominantly English speaking and non-English speaking homes presented in Tables 36-38 is also displayed in Figures 57 to 62. The graph depicts the proportion of non-English predominant home students to English predominant home students falling into the lowest scoring group (more than one standard deviation below the mean) on each of the Basic Skills tests. The figures are organized by region, so that within-region comparisons may be made for each of the three tests; reading, language arts, and mathematics. From the figures it can be seen that the proportion of non-English predominant home students varies among test type and grade level, generally with the larger percentage of non-English students occurring at grade 11 in mathematics and grades 6 and/or 11 in reading. The proportions for language arts vary widely within and between regions.

It is not clear whether the home languages/test performance relationships presented in this section are associated with differential levels of English proficiency, or with some other factor such as curricular differences among regions and recency in DoDDS system or family socio-economic background. In regions with large numbers and proportions of students from non-English predominant homes, or where there is a disproportionate number of non-English predominant home students represented in the low scoring groups, language proficiency assessment may be necessary.

TABLE 36

The Percentage of Students from English Predominant Homes Scoring More Than One Standard Deviation Below the Mean, Compared with the Percentage of Students from Non-English Predominant Homes Scoring More Than One Standard Deviation Below the Mean.

READING

Grade		ATLANTIC		GERMANY NORTH		GERMANY SOUTH		MEDITERRANEAN		PACIFIC		PANAMA	
		E	non E	E	non E	E	non E	E	non E	E	non E	E	non E
3	%	15	31	15	19	17	30	17	24	15	18	14	30
	N	1,303	55	4,266	233	2,889	202	1,173	144	1,715	313	526	169
4	%	11	25	12	20	14	23	10	13	12	18	11	29
	N	1,247	52	3,777	218	2,582	224	1,138	128	1,580	206	529	119
6	%	15	52	14	23	12	25	15	25	14	33	13	29
	N	1,031	29	2,829	168	1,993	150	952	118	1,298	140	430	86
9	%	13	22	14	24	12	22	12	35	10	40	13	24
	N	895	32	2,064	162	1,534	126	502	69	882	95	464	116
11	%	13	31	11	32	8	18	10	16	11	43	10	27
	N	676	13	1,494	104	1,028	94	369	67	590	46	357	107

% = Proportion in low scoring group

N = Total number of students in each language category, regardless of score

TABLE 37

The Percentage of Students from English Predominant Homes Scoring More Than One Standard Deviation Below the Mean, Compared with the Percentage of Students from Non-English Predominant Homes Scoring More Than One Standard Deviation Below the Mean.

LANGUAGE ARTS

Grade		ATLANTIC		GERMANY NORTH		GERMANY SOUTH		MEDITERRANEAN		PACIFIC		PANAMA	
		E	non E	E	non E	E	non E	E	non E	E	non E	E	non E
3	%	13	24	15	19	15	25	13	20	13	18	11	24
	N	1,303	55	4,266	233	2,889	202	1,173	144	171	313	526	169
4	%	10	27	12	19	12	19	11	13	14	26	11	23
	N	1,247	52	3,777	218	2,582	224	1,138	128	1,580	206	529	119
6	%	8	14	12	20	9	15	10	15	14	20	10	29
	N	1,031	29	2,829	168	1,993	150	952	118	1,298	140	430	86
9	%	14	9	11	16	12	23	11	22	12	47	11	16
	N	895	32	2,064	162	1,534	126	502	68	882	95	464	116
11	%	11	31	11	15	8	13	9	9	10	30	13	21
	N	676	13	1,494	104	1,028	94	369	67	590	46	357	107

% = Proportion in low scoring group

N = Total number of students in each language category, regardless of score

TABLE 38

The Percentage of Students from English Predominant Homes Scoring More Than One Standard Deviation Below the Mean, Compared with the Percentage of Students from Non-English Predominant Homes Scoring More Than One Standard Deviation Below the Mean.

MATHEMATICS

Grade		ATLANTIC		GERMANY NORTH		GERMANY SOUTH		MEDITERRANEAN		PACIFIC		PANAMA	
		E	non E	E	non E	E	non E	E	non E	E	non E	E	non E
	%	15	18	16	22	16	24	15	17	17	14	15	20
3	N	1,303	55	4,266	233	2,889	202	1,173	144	1,715	313	526	169
	%	13	8	13	15	15	18	14	16	14	16	13	14
5	N	1,175	37	3,301	158	2,343	180	1,004	109	1,493	197	492	141
	%	15	33	17	24	13	11	14	22	16	29	11	22
7	N	942	42	2,205	170	1,622	138	715	88	1,093	119	468	108
	%	15	46	15	25	12	17	11	15	13	26	13	22
11	N	676	13	1,494	104	1,028	94	369	67	590	46	357	107

% = Proportion in low scoring group

N = Total number of students in each language category, regardless of score

FIGURE 57

PROPORTION OF STUDENTS FROM PREDOMINANTLY ENGLISH AND NON-ENGLISH SPEAKING HOMES SCORING MORE THAN ONE STANDARD DEVIATION BELOW THE MEAN: ATLANTIC

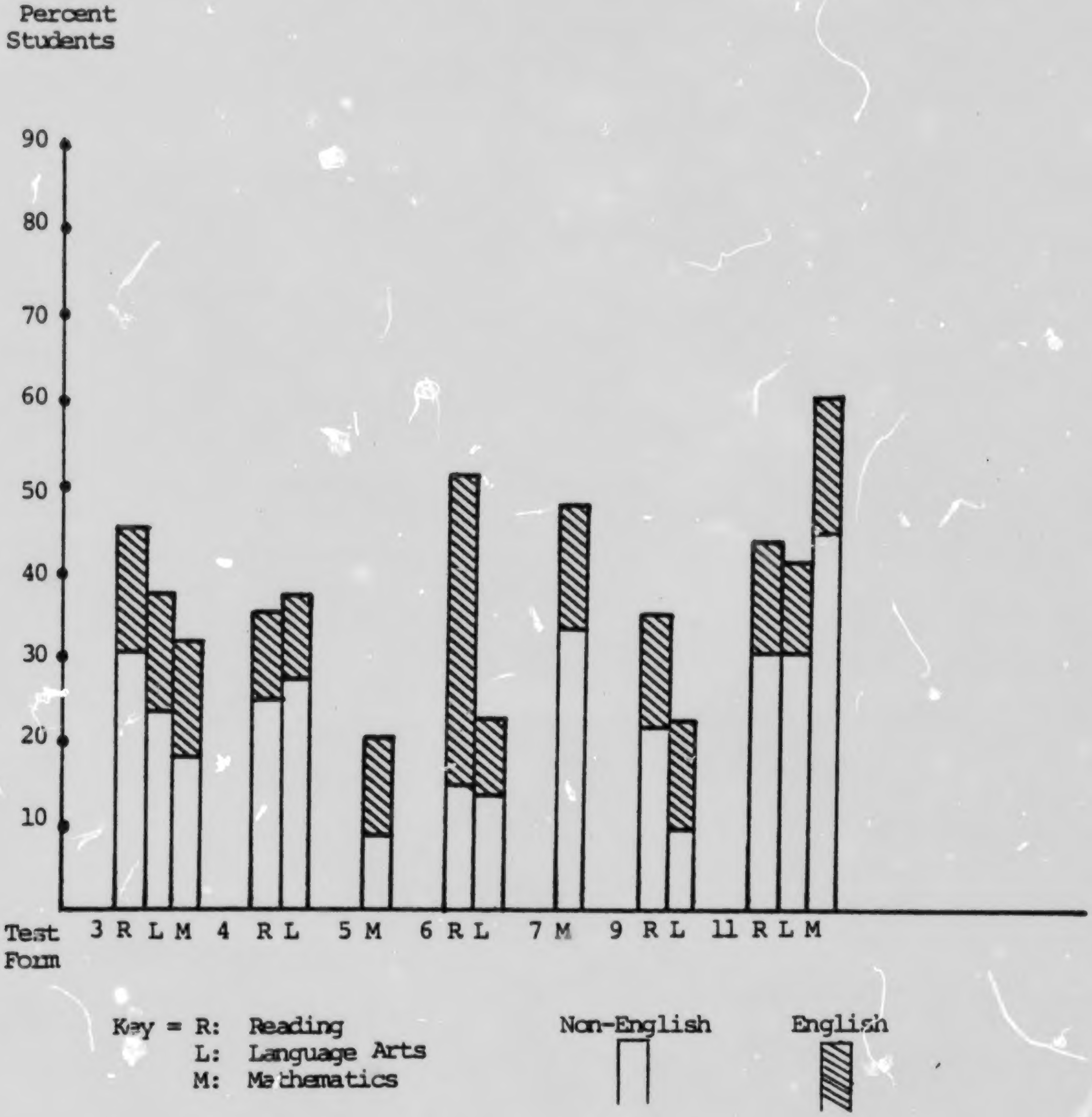


FIGURE 58

PROPORTION OF STUDENTS FROM PREDOMINANTLY ENGLISH AND NON-ENGLISH SPEAKING HOMES SCORING MORE THAN ONE STANDARD DEVIATION BELOW THE MEAN: GERMANY NORTH

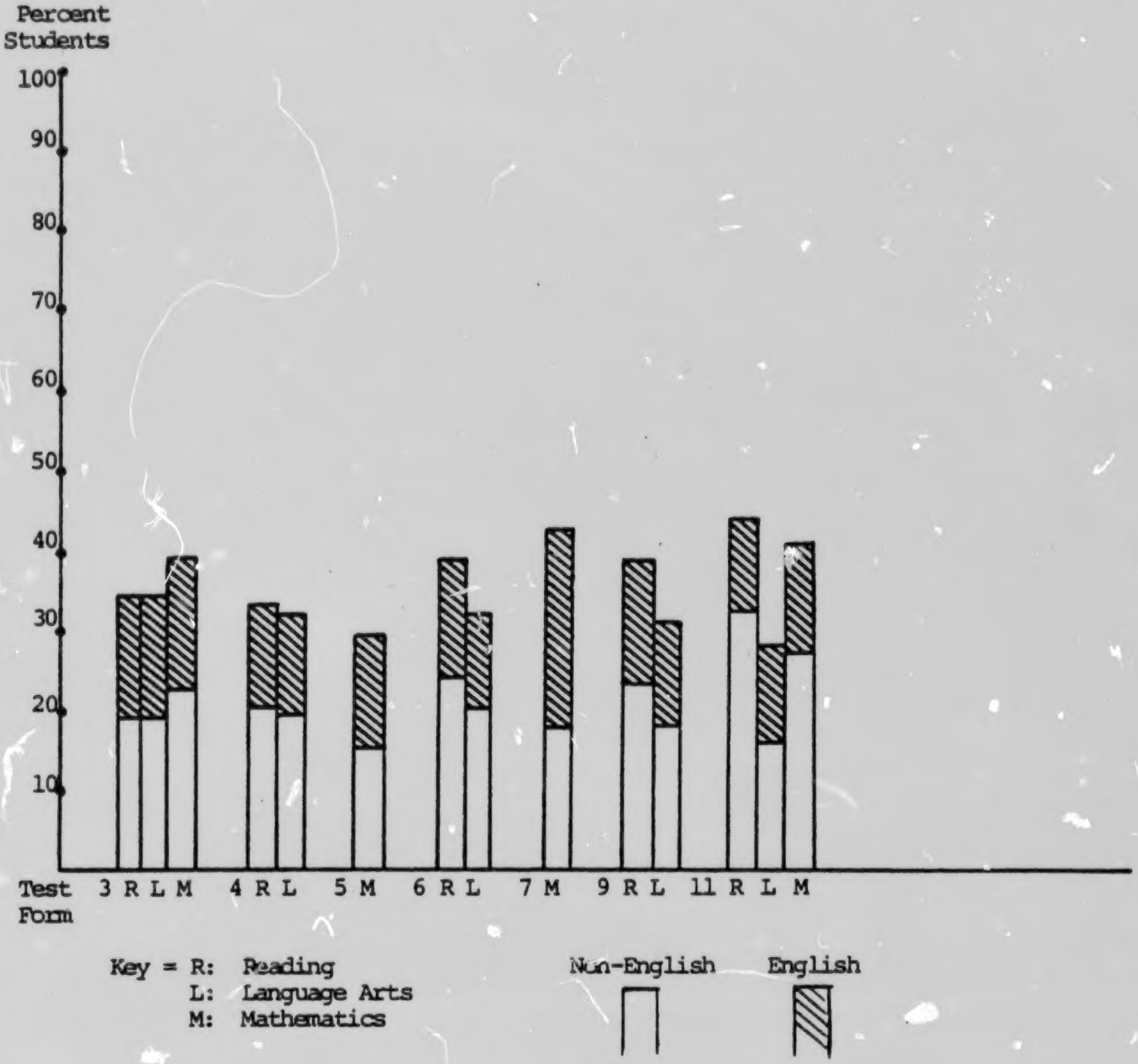


FIGURE 59

PROPORTION OF STUDENTS FROM PREDOMINANTLY ENGLISH AND NON-ENGLISH SPEAKING HOMES SOCRING MORE THAN ONE STANDARD DEVIATION BELOW THE MEAN: GERMANY SOUTH

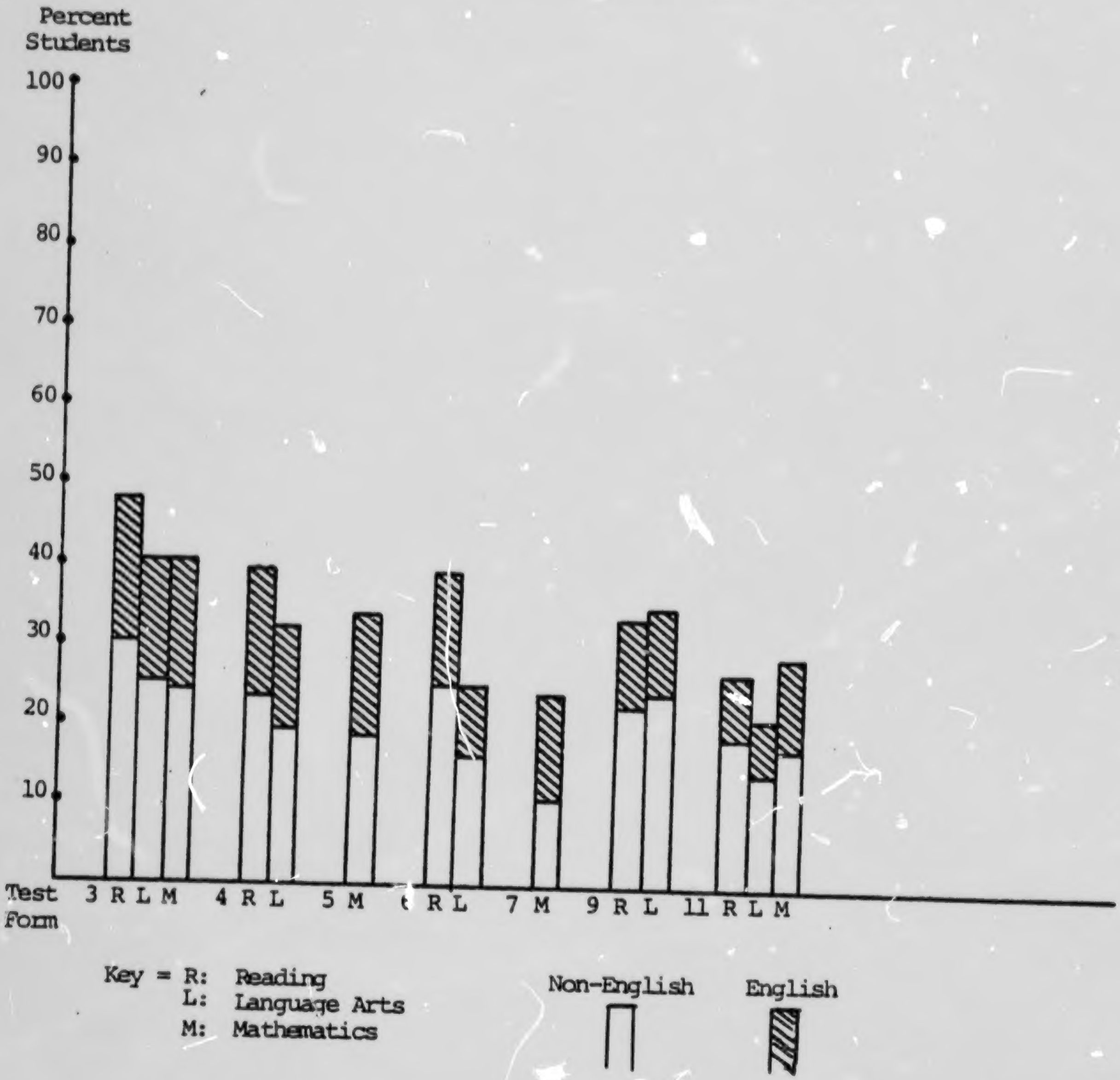


FIGURE 60

PROPORTION OF STUDENTS FROM PREDOMINANTLY ENGLISH AND NON-ENGLISH SPEAKING HOMES SCORING MORE THAN ONE STANDARD DEVIATION BELOW THE MEAN: MEDITERRANEAN

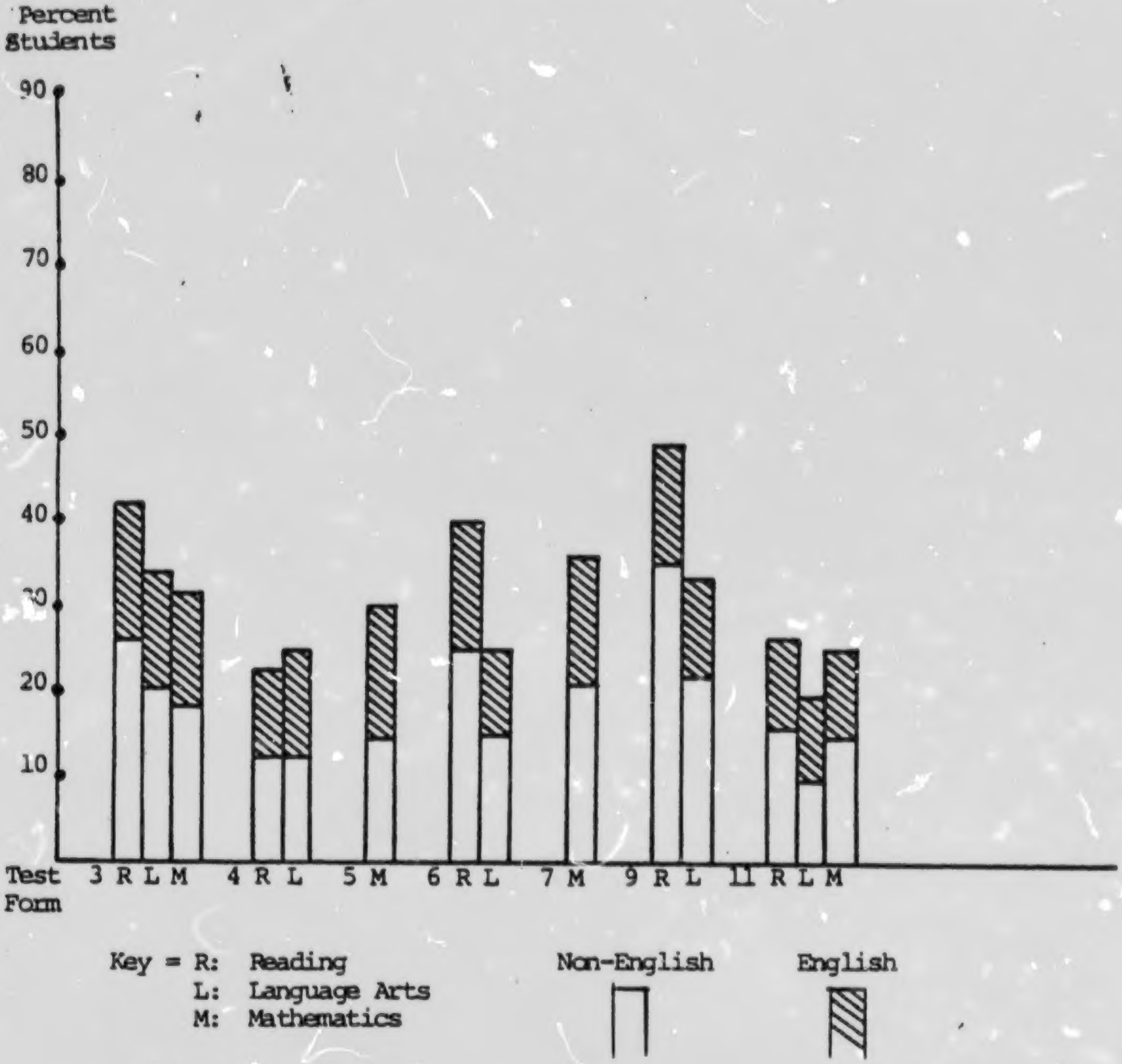


FIGURE 61

PROPORTION OF STUDENTS FROM PREDOMINANTLY ENGLISH AND NON-ENGLISH SPEAKING HOMES SCORING MORE THAN ONE STANDARD DEVIATION BELOW THE MEAN: PACIFIC

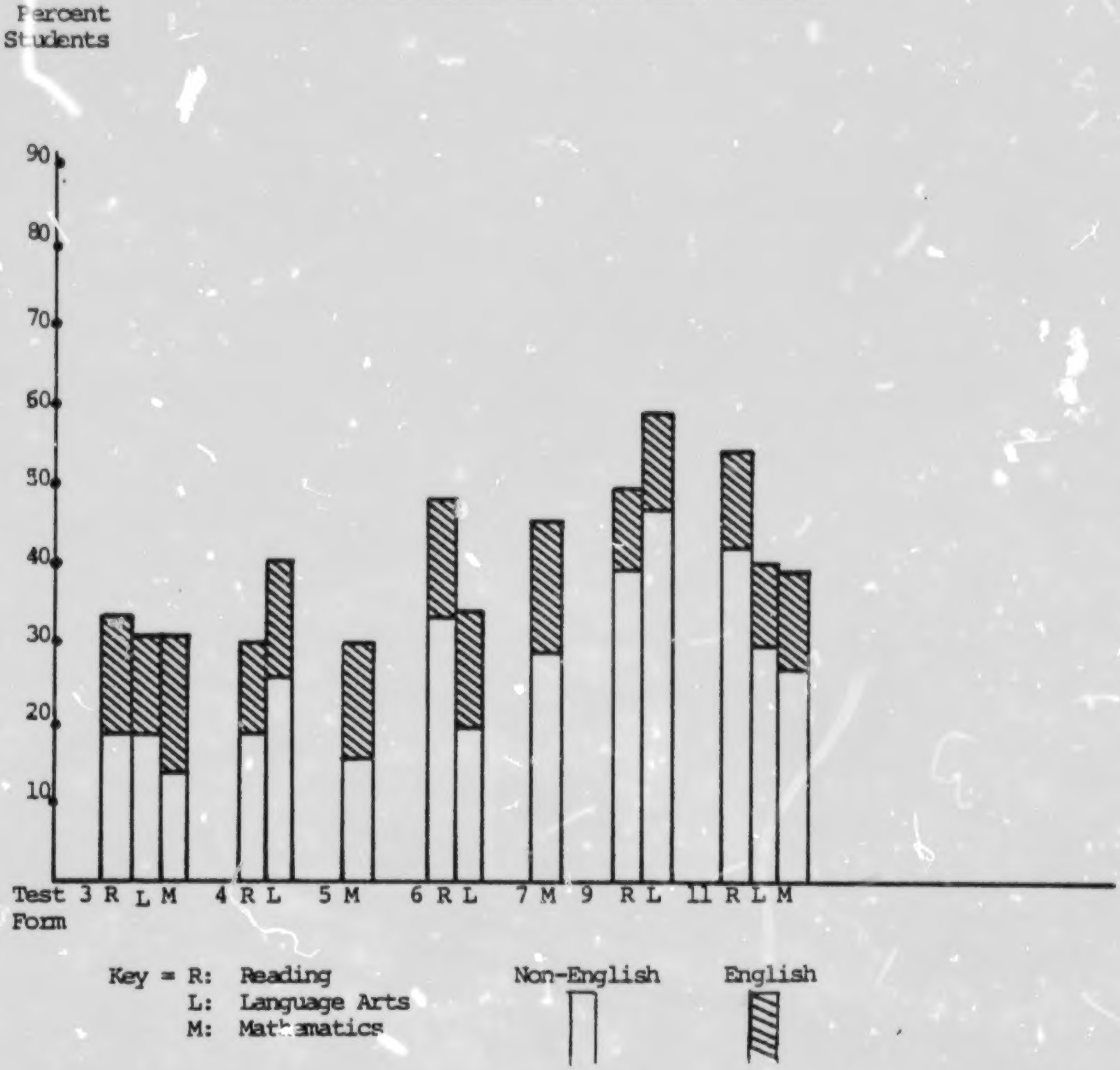
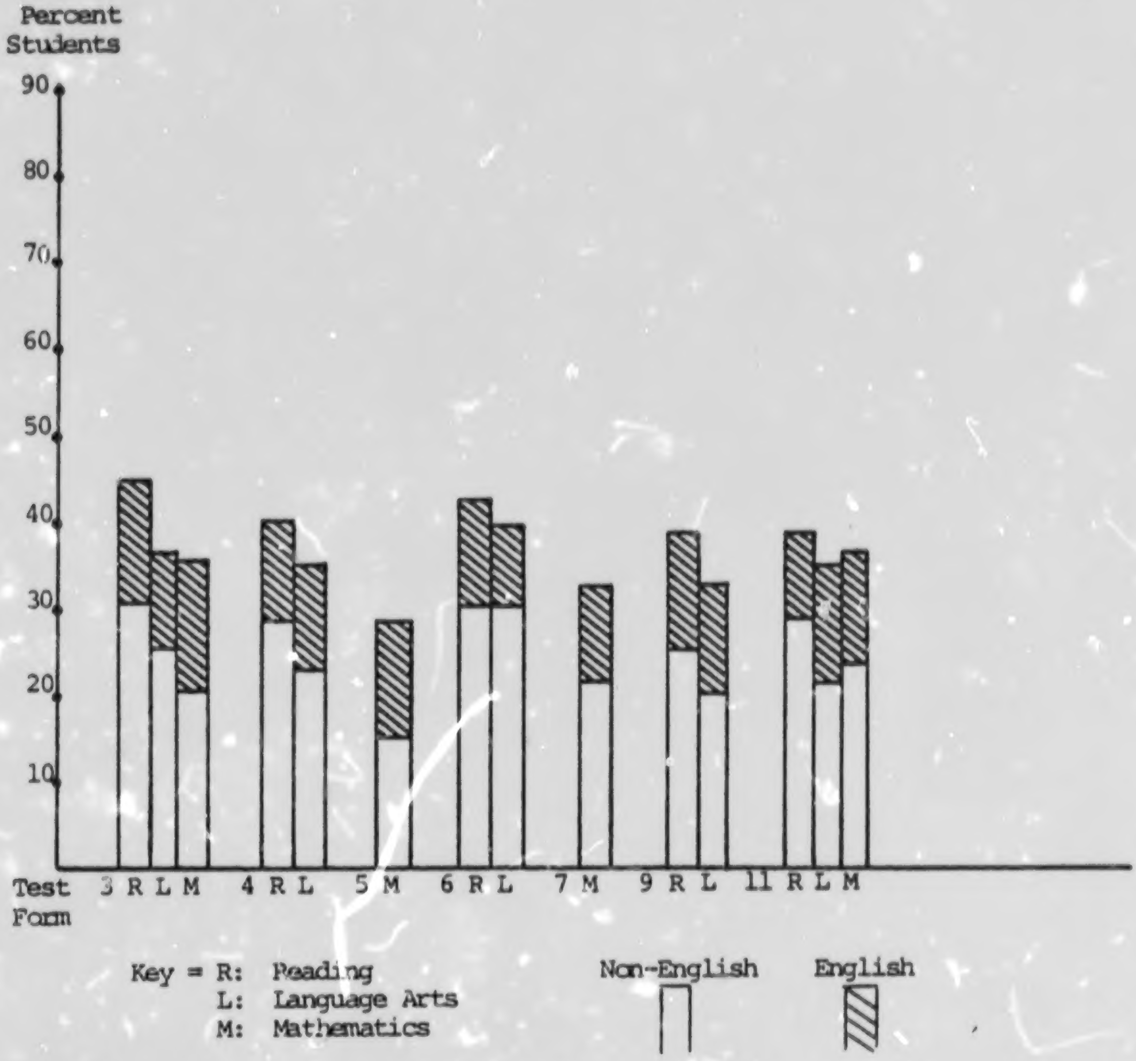


FIGURE 62

PROPORTION OF STUDENTS FROM PREDOMINANTLY ENGLISH AND NON-ENGLISH SPEAKING HOMES SCORING MORE THAN ONE STANDARD DEVIATION BELOW THE MEAN: PANAMA



Years in DoDDS and Rank of Sponsor

Tables 39 to 52 display the results from the three-way analyses of variance used to investigate the relationship between demographic variables and test performance. There are tables for each of the fourteen test forms administered in spring, 1980. Each table presents the mean test score for students reporting specified levels of Rank of Sponsor and those who have been enrolled in the DoDDS system less than one, one to two, or three or more years. There is also a mean reported for students who were unable to specify how long they have been enrolled in DoDDS. Interestingly, for this group, the means are almost universally lower than for any of the others.

Post hoc analyses of the means were performed with Duncan's Multiple Range test. The results of these analyses are summarized in Table 53.

The highest mean score on each test and at every grade level was obtained by students enrolled in DoDDS for three or more years with one exception, the grade 11 reading test. On this test, the highest performing students had been in DoDDS less than one year. The lowest mean scores were observed for students who responded "don't know" to the years in DoDDS question.

Significant differences in mean test performance were found in every case between students who had been in DoDDS for three or more years and the "don't know" group. Mean test performance was not significantly different between students in DoDDS less than one year, one to two years, or three or more years, with the following exceptions: for grade 3, reading - students in DoDDS less than one year and for one to two years did not perform in a significantly different way. Students in DoDDS three or more years performed in a significantly different way from students in DoDDS one to two years, but not from those in DoDDS less than one year. At grade 9, reading - students in DoDDS one to two and three or more years performed about the same; students in the system three or more years out-performed those in the system only one year, but not those in the system from one to two years.

Language arts performance, like reading test performance, was in most cases not significantly different among students enrolled in DoDDS for different amounts of time. The one exception was found with language arts, grade 9 where students in the system three or more years out-performed those in the system for less than one year, but not those in the system for one to two years.

There were no significant differences among the means of students enrolled in DoDDS for different lengths of time on the mathematics test.

A review of the mean scores obtained by students with different reported Ranks of Sponsor reveals some interesting results. Students reporting sponsor rank of Officer 4-6 out-performed other groups on all tests but two: language arts - grade 9, and mathematics - grade 11. On these two tests, the Officer 4-6 students were second to students reporting Rank of Sponsor as Officer 7-10. The lowest mean performance on all tests, in all grade levels, was obtained by students reporting sponsor rank Enlisted 1-4.

Although it is clear which sponsor-rank groups obtained the highest and lowest mean scores, the significance of the differences between these means is not straightforward. Table 53 summarizes the sponsor rank groups whose means are statistically the same (reported in the same cell) and who are statistically different from each of the other clusters of means. Ranks that appear in more than one group are not significantly different from other group members while, in all cases, mean performance of students in rank category 5 (Officer 4-6) is significantly different from those in rank category 1 (Enlisted 1-4). The significant difference between other sets of means should be examined for individual tests and rank groups.

TABLE 39

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Reading, Grade 3

Years in DoDDS	Rank									$\bar{X}$
	E1-E4	E5-E9	W1-W4	01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	Years
Less than one year	538	563	582	587	597	559	545	593	601	569
1 - 2 years	549	561	577	587	597	573	558	584	589	567
3 or more	544	565	576	592	595	582	577	587	579	571
Don't know	554	544	552	564	575	573	517	572	554	549
$\bar{X}$ Rank	544	562	577	588	596	573	557	588	587	

TABLE 40

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Reading, Grade 4

Years in DoDDS	E1-E4	E5-E9	W1-W4	Rank 01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	$\bar{X}$ Years
Less than one year	532	546	552	563	578	568	575	564	558	551
1 - 2 Years	528	545	556	566	575	558	553	569	571	551
3 or more	537	546	561	575	573	555	530	574	574	553
Don't know	531	533	567	551	546	558	566	564	564	537
$\bar{X}$ Rank	532	545	558	568	575	559	545	571	570	

TABLE 41

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Reading, Grade 6

				Rank						
Years in DoDDS	E1-E4	E5-E9	W1-W4	01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	$\bar{X}$ Years
Less than one year	565	580	603	591	624	612	583	602	625	590
1 - 2 years	556	582	589	603	626	606	601	610	611	592
3 or more	566	585	603	607	616	584	581	608	614	590
Don't know	536	558	595	576	603	555	-	566	562	564
$\bar{X}$ Rank	561	582	600	601	620	597	584	606	615	

TABLE 42

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Reading, Grade 9

Years in DoDDS	E1-E4	E5-E9	W1-W4	Rank 01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	$\bar{X}$ Years
Less than one year	578	604	611	625	635	634	607	619	634	613
1 - 2 years	593	606	616	636	639	644	614	628	628	615
3 or more	601	612	621	623	640	637	617	630	629	618
Don't know	592	587	608	617	596	585	579	602	626	591
$\bar{X}$ Rank	591	608	618	627	638	638	610	626	631	

TABLE 43

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Reading, Grade 11

Years in DoDDS				Rank						$\bar{X}$
	E1-E4	E5-E9	W1-W4	01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	Years
Less than one year	603	616	637	630	645	646	615	629	637	627
1 - 2 years	588	614	625	638	647	629	612	631	635	625
3 or more	601	620	635	630	642	628	620	632	625	626
Don't know	-	582	607	-	629	698	506	601	588	594
$\bar{X}$ Rank	596	618	633	632	644	633	617	631	631	

TABLE 44

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Language Arts, Grade 3

Years in DoDDS	E1-E4	E5-E9	W1-W4	Rank 01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	$\bar{X}$ Years
Less than one year	456	480	506	507	514	483	474	507	505	486
1 - 2 years	466	478	492	505	517	490	487	509	509	485
3 or more	460	481	494	511	512	514	506	510	485	488
Don't know	461	458	473	496	486	466	442	438	436	461
$\bar{X}$ Rank	561	579	595	507	514	595	586	508	494	

TABLE 45

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Language Arts, Grade 4

Years in DoDDS	E1-E4	E5-E9	W1-W4	Rank 01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	$\bar{X}$ Years
Less than one year	494	503	508	530	536	520	534	517	528	509
1 - 2 years	494	504	520	530	536	505	520	528	533	511
3 or more	490	504	519	532	533	510	520	531	539	512
Don't know	487	497	533	512	510	534	-	526	520	500
$\bar{X}$ Rank	493	503	518	530	535	512	523	527	534	

TABLE 46

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS:
Language Arts, Grade 6

Years in DoDDS	E1-E4	E5-E9	W1-W4	Rank 01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	$\bar{X}$ Years
Less than one year	536	541	554	558	576	579	566	561	587	550
1 - 2 years	512	545	543	565	577	567	547	570	576	552
3 or more	544	547	558	564	575	560	543	566	554	553
Don't know	525	526	554	545	547	532	-	519	568	530
$\bar{X}$ Rank	530	546	554	562	575	566	547	565	567	

TABLE 47

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Language Arts, Grade 9

Years in DoDDS	E1-E4	E5-E9	W1-W4	Rank 01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	$\bar{X}$ Years
Less than one year	534	565	560	579	600	589	566	582	587	574
1 - 2 years	549	565	584	596	606	606	581	583	590	577
3 or more	568	573	584	594	603	607	583	597	590	581
Don't know	558	544	568	575	554	575	487	567	598	548
$\bar{X}$ Rank	551	569	580	590	602	603	570	590	589	

TABLE 48

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Language Arts, Grade 11

Years in DoDDS	E1-E4	E5-E9	W1-W4	Rank 01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	$\bar{X}$ Years
Less than one year	579	575	607	594	615	620	586	594	605	591
1 - 2 years	548	576	567	616	618	608	582	593	606	590
3 or more	549	584	605	609	613	598	593	605	592	593
Don't know	-	541	599	-	604	579	500	559	444	551
$\bar{X}$ Rank	559	581	599	607	614	604	589	601	598	

TABLE 49

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Mathematics, Grade 3

Years in				Rank						$\bar{X}$
DoDDS	E1-E4	E5-E9	W1-W4	01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	Years
Less than one year	456	480	506	507	514	483	474	507	505	486
1 - 2 years	465	478	492	505	517	490	487	509	509	485
3 or more	460	481	494	511	512	514	506	510	485	488
Don't know	461	458	473	496	486	466	442	438	436	461
$\bar{X}$ Rank	461	479	494	507	514	495	486	508	494	

TABLE 50

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Mathematics, Grade 5

Years in DoDDS	E1-E4	E5-E9	W1-W4	Rank 01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	$\bar{X}$ Years
Less than one year	494	503	508	530	536	520	534	517	528	509
1 - 2 years	494	504	520	530	536	505	520	528	533	511
3 or more	490	504	519	532	533	510	520	531	539	512
Don't know	487	497	533	512	510	534	-	526	520	500
$\bar{X}$ Rank	493	503	518	530	535	512	523	527	534	

TABLE 51

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Mathematics, Grade 7

Years in DoDDS	E1-E4	E5-E9	W1-W4	Rank 01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	$\bar{X}$ Years
Less than one year	536	541	554	558	576	579	566	561	587	550
1 - 2 years	512	545	543	565	577	567	547	570	576	552
3 or more	544	547	558	564	575	560	543	566	554	553
Don't know	525	526	554	545	547	532	-	519	568	530
$\bar{X}$	530	545	554	562	575	566	547	565	567	

TABLE 52

Mean Scores on Basic Skills Assessment Tests by Rank of Sponsor and Years in DoDDS: Mathematics, Grade 11

Years in DoDDS	E1-E4	E5-E9	W1-W4	Rank 01-03	04-06	07-010	GS1-GS7	GS8-GS12	GS13+	$\bar{X}$ Years
Less than one year	534	565	560	579	600	589	566	582	587	574
1 - 2 years	549	565	584	596	606	606	581	583	590	577
3 or more	568	573	584	594	603	607	583	597	590	581
Don't know	558	544	568	575	554	575	487	567	598	548
$\bar{X}$ Rank	551	569	580	590	603	603	570	590	589	

TABLE 53

Results of Duncan's Multiple Range Post Hoc Comparisons for Rank of Sponsor Means

	*GROUP A	GROUP B	GROUP C	GROUP D	GROUP E
	Highest Ranking Means	→	→	Lowest Ranking Means	
READING					
3	5,8	8,4,9	9,3,6	6,2,7	7,1
4	5,8,9,4,6	9,4,6,3	6,3,2,7	7,1	
6	5,9	9,8	8,4,3,6	6,7,2	7,2,1
9	5,6	6,9,4,8	4,8,3	3,7	2
11	5	3,6,4,8,9	2,7	7,1	
LANGUAGE ARTS					
3	5,8,4,6	6,3,9,7,2	2,1		
4	5,9,4,8,7	8,7,3,6	7,3,6,2	1	
6	5,9,6	9,6,8,4,3,7	6,8,4,3,7,2	7,2,1	
9	6,5,4,8,9	4,8,9,3	3,7	7,2,1	
11	5,4,6	4,6,8,3,9,7	7,2	1	
MATHEMATICS					
3	5,8,4,6	6,3,9,7,2	7,2,1		
5	5,9,4,8,7	8,7,3,6	7,3,6,2	1	
7	5,9,6	9,6,8,4,3,7	6,8,4,3,7,2	7,2,1	
11	6,5,4,8,9	4,8,9,3	3,7	7,2,1	

Key:
1 Enlisted 1-4
2 Enlisted 5-9
3 Warrant Officer 1-4
4 Officer 1-3
5 Officer 4-6
6 Officer 7-10
7 GS (Government Service) 1-7
8 GS 8-12
9 GS 13

*Group = All ranks listed in each group do not differ significantly from each other but do differ from all other groups at $P < .001$.

Summary of Demographic Comparisons

The relationships between student characteristics and test performance presented in this section suggest that further investigation of the variables that may be associated with student basic skill performance is warranted. Although the spring assessment identified three variables; home language, years in school system, and rank of sponsor (a proxy variable for socio-economic status) which appear to explain some aspects of test performance, other variables known to be associated with program outcomes have been omitted. Among these are student entry level (pre-test performance), time on task (amount of practice provided), kinds of practice provided, clarity of instruction, and students' need to achieve and/or locus or control. Further basic skills assessments may wish to collect data on some of the other variables that have hypothesized relationships to program success in order to pinpoint better those aspects of the instructional program that can be improved. For example, the relationship between sponsor rank and test performance, though interesting, has few implications for instructional improvement because this factor is outside of the control of the school system. On the other hand, further investigation of language proficiency of DoDDS students and its relationship to test performance could result in changes of instructional programs. Perhaps the most important finding from the demographic study is that it is possible to identify variables thought to be linked to test performance and confirm their tentative relationship to student outcomes. Subsequent efforts can focus on those variables not only thought to be linked to student performance, but also amenable to modification within the instructional setting.

CHAPTER 5: FINDINGS, CURRICULAR IMPLICATIONS, AND RECOMMENDATIONS

Introduction

The purpose of this section of the technical report is to (1) present the findings of the Basic Skills Assessment program relative to each content area, and (2) discuss the curricular implications and recommendations of these findings. The findings are presented by grade level within the three content areas of reading, math, and language arts.

Analysis of the Data

Data were examined two ways: (1) by skill area or objectives, and (2) in terms of overall student performance. The purpose of the analyses was to answer the question: Which skills can 70% of the students pass or answer correctly, and how many students are able to pass 70% of all items or skills tested?

First, in order to determine how many students passed 70% of the items, Rasch score conversion tables were computed (see Appendix) to identify a Rasch score equivalent to answering 70% of the items correctly.

This method of analysis was developed by Slawski and Bauer (1978) for use with the Michigan Educational Assessment Program. In using this procedure a number of assumptions apply: (1) that the items tested fit the Rasch model and are acceptable for analysis, (2) that the item calibrations would yield a measure on scale that would accurately summarize where students fell on the latent trait measured by the test (math, reading, language arts), and (3) that all objectives have equal importance in defining a general ability within a specified domain.

Slawski and Bauer found a very high positive correlation between the standard log achievement scores (SLAS) and number of items mastered (r=.93). In defining mastery, they write:

> Decisions tend not to be based
> upon the entire range of numbers
> of objectives mastered but to be

> concentrated at that point which seems intuitively to indicate mastery in a more global sense, that is, at 75 percent.*

Because DoDDS Basic Skills Assessment Program was designed with *all* students in mind, achievement as well as minimal competence level objectives were included on the tests. For this reason a criterion of 70%, which "intuitively" (borrowing Slawski and Bauer's term) seemed to indicate a reasonably acceptable level of mastery in a global sense, was selected merely for purposes of analysis. Other applications of the Rasch technique to criterion-referenced tests (Kifer and Bramble, 1974) applied a criterion of 80% using this same technique for analyzing performance.

The second method of analysis focused on skill objectives or items, applying a performance criterion of 70% to facilitate description of the data. Test items were grouped two ways: (1) those items with group performance *above* 70%, and (2) those items with group performance percentages *below* 70%. These data were taken from the Performance Curriculum Match Report forms (see Appendix).

Deviations or discrepancies between the *expected* and observed percent correct were treated separately. Items with a discrepancy greater than 5% were grouped for further analysis.

Rationale for Selection of Criterion

To describe performance with a degree of precision, selection of a standard for comparison was necessary. The following factors were taken into consideration when reporting findings and related implications in relation to a 70% criterion: (1) item difficulty relative to upper and lower limits of the total skill range, (2) the observed percent correct relative to that which was *expected* based on student ability, and (3) placement of the skill relative to the grade level and the overall instructional program as defined by DoDDS scope and sequence.

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*Slawski, Edward J.; Bauer, Ernest A. "Reducing Testing Time While Preserving Testing Information: A Ten Item Fourth Grade MEAP Reading Test." Paper presented at the Annual Meeting of the Michigan Educational Research Association (Detroit, Michigan, March, 1978.) page 13.

By using an intuitive 70% criterion as a standard for comparison, combined with the three factors listed above, it was possible to identify those items considered to be measuring achievement or optimal skill development and those more representative of minimal competence skill levels.

As used in this report, the term optimal is synonymous with achievement levels in that both refer to the upper limits of a subskill. For example, the subskill of understanding the contextual meaning of a word has a range of difficulty as follows:

385		*	649
Rasch	contextual meaning	623	Rasch
Scale			Scale
Value			Value

An item with a calibrated difficulty of 623 would be testing the upper limits of the skill range for the subskill contextual meaning. Dependent upon the grade level, instructional program, and calibrated difficulty of an item, this upper range may be representative of optimal skill development as opposed to minimal competence levels, even though the objective represents a basic skill for all students.

It is reasonable to assume, then, that as the upper limits of a skill are tested, a drop in the overall performance percentage would be expected. Not all students may reach optimal levels of skill development, particularly on inherently more difficult subskills that require more complex thought processes. Skill difficulty and relative position within the curriculum served to keep an across-the-board use of a 70% criterion in proper perspective.

Items with correct response percentanges of 85-95% could be representative of minimal competence levels. Remaining skill areas showing performance levels below 70% represent inherently more difficult items requiring continued instructional emphasis.

Rasch Continuums for Score Interpretation

The purpose for analyzing the data two ways (in terms of performance on 70% of the items, and 70% of the students correct performance on all items) is to assist school personnel with interpretation of the findings at all levels of the educational system. Curriculum coordinators and program planners are interested in performance findings as they relate to program effectiveness; administrators and teachers are interested in individual performance as it relates to a standard. Both kinds of information require interpretations in relation to a Rasch measurement scale.

To facilitate interpretation of scores and overall performance data, measurable skill objectives selected from DoDDS scope and sequence of basic skills were placed on the Rasch measurement scale. The result is a skills continuum built on empirically-based difficulty values representing the upper and lower limits for each subskill. Bands of interrelated skills allow analysis of student performance relative to a total curricular sequence.

A skills continuum was designed to facilitate score interpretation in reading, mathematics and language arts, and can be found within each content area report of this chapter.

For interpretation of individual student scores, the reader is directed to suggested procedures in the Administrators Pamphlet or the list of instructions in the appendix of this report.

FIGURE 63

READING SKILLS CONTINUUM

300 400 500 600

Phonetic Analysis	413	Sound/Symbol Relationship	578
	360	Consonant Digraphs	525
	400	Consonant Sounds	578
	449	Variant Consonant Sounds	531
	370	Consonant Blends	491
Sight Vocabulary	385	Contextual Meaning	649
	349	Synonyms	596
	392	Antonyms	639
	373	Basic Sight Words	459
Structural Analysis	388	Long Vowels	578
	430	Short Vowels	542
	430	Vowel Digraphs/ Diphthongs	542
	367	Contractions	544
	377	Irregular Verb Forms	457

FIGURE 63 (cont'd.)

READING SKILLS CONTINUUM

	300	400	500	600
Structural Analysis (continued)	347	Prefixes		606
	390	Suffixes		590
	497	Inflected Endings		569
	354	Compound Words		470
	374	Root Words		539
	419	Plural and Possessive Noun Endings		651
	429	Homographs		560
	471	Singular Possessives		529
Comprehends Factual Information	415	Literal Main Idea		570
	386	Sequence		665
	378	Recalling Factual Details		612
Comprehends Critically Material Read	405	Inferential Main Idea		528
	423	Predicting Outcomes		617
	419	Cause/Effect		633
	459	Fact/Opinion		637
	554	Interpreting Information		600

FIGURE 63 (cont'd.)

READING SKILLS CONTINUUM

300 400 500 600 700

Comprehends Critically Material Read (continued)	564	Bias	674
	490	Relationship of Ideas	591
	420	Subordinate Detail	637
	469	False Conclusions Generalities	615
	423	Analogies, Similes, Metaphors	687
	481	Author Point of View	619
Uses Visual Reference Materials	362	Drawing Conclusions	645
	459	Identifying Important Facts & Outcomes	620
	471	Use of Reference Materials	666
	488	Card Catalog	500
	374	Use of Index	595
	501	Glossary	538
	414	Interpreting Charts, Graphs, Maps	654
	478	Locating Information	523
	405	Use of Table of Contents	553
	454	Alphabetize	515
	515	Dictionary Guidewords	572
	572	Contextual Definition	674

FIGURE 63 (cont'd.)

READING SKILLS CONTINUUM

		300	400	500	600	700
Organizes Material ead for Effective Study	Following Directions		369		626	
	Classifies Information		452		637	
	Summarizes Essential Points		462		610	
	Main Idea		415		598	
	Supporting Details		420		637	
ppreciates Literature n Many Genres	Universal Theme		415		631	
	Characterization/Motives		417		640	
	Figurative Language/Imagery		401		652	
	Cause & Effect		440		633	
	Mood/Tone		403		598	
	Compare/Contrast		460		570	
	Point of View		489		619	
	Summary, Generalization		473		623	

TABLE 54

Mean Scores Across Grade Levels for Reading

Grade Level	3	4	6	9	11
Mean Score	568	552	591	616	626
Number of Students	13,248	11,902	9,293	6,960	4,945

TABLE 55

Cut Scores and Percentages of Students Correctly Answering 70% of the Reading Items

Grade	3	4	6	9	11
Cut Score	518	521	558	617	609
Percent Correctly answering 70% of the items	82%	78%	75%	52%	74%

TABLE 56

Percentage of Students in Selected Quality of Measure Index Range for Basic Skills Reading Tests

READING

	Grade 3	4	6	9	11
Mean QMI	94	96	96	96	96
Range	65-100	62-100	69-100	65-100	65-100
QMI Value					
90-100	81.33	91.21	93.82	95.79	97.14
79-89	17.87	8.42	6.02	3.88	2.78
68-78	.71	.31	.15	.27	.06
44-67	.11	.07	0	.07	.02

Basic Skills Assessment Results for Reading

Introduction

During the school year 1979-80, DoDDS expanded the Basic Skills Assessment Program to test reading skills at grades 3, 4, 6, 9, and 11. Only grades 9 and 11 had been tested in 1978-79. The reading skills of 46,348 students were analyzed by the methods described in the preceding section of this report.

Eight broad categories or domains of reading skills were identified by DoDDS scope and sequence as necessary to the overall development of effective reading skills. These categories or goals served as a framework for test construction. Program goals for reading development are listed below.

The student demonstrates:

.use of comprehensive sight vocabulary
.use of structural analysis for word recognition
.comprehension of factual information
.analysis of words phonetically
.comprehension of critically-read information
.use of visual reference materials
.organization of reading material for effective study
.appreciation of literature in many genres

Subskills selected from each of the program goals define reading performance relative to DoDDS instructional scope and sequence. Specific measurable skill objectives are listed for each grade level.

Figure 63 represents the range of difficulty on the Rasch continuum of selected DoDDS scope and sequence skills which were measured in spring, 1980.

Mean scores across grade levels for reading are presented in Table 54. Cut scores used to determine percentages of students correctly answering 70% of the test items are summarized in Table 55. The percentage of students in selected Quality of Measure Index ranges for basic skills reading tests is presented in Table 56.

Findings will be presented by grade level.

Reading Test Findings, Curricular Implications and Recommendations

DoDDS Reading Objectives: Third Grade

The student should be able to:

- recognize variant consonant sounds
- recognize initial consonant sounds
- identify sound/symbol relationship
- recognize long vowels
- recognize short vowels
- recognize words from the Dolch list
- use plural forms
- use inflected endings
- identify compound words
- identify root words
- sequence events (words)
- use contextual clues for meanings (sentence and paragraph)
- find the main idea (literal and interpretive)
- pick out details
- predict outcomes of orally read story
- recognize fact and fantasy
- identify cause and effect
- follow 1-step written directions (2 levels of difficulty)
- use a table of contents
- alphabetize by first letter

Student Performance on Objectives

As shown in Table 57, for grade 3, a Rasch score of 518 is equivalent to correctly answering 70% of the items. Using a cut-score of 518, and the Administrative Summary Report for grade three (see Appendix 7), it was determined that 82% of the third grade students got 70% of the items correct.

Overall performance on all objectives tested was excellent. Findings suggest that, because most objectives were attainable by the majority of students, the test was truly representative of basic reading skills. Items selected to assess these objectives may be more representative of minimal competence levels for DoDDS third graders.

TABLE 57

Grade Three Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
01	Initial consonants	403	95	95	+0
08	Contextual clues	406	94	95	+1
03	Initial consonants	418	93	94	+1
06	Word recognition - Dolch List	415	93	94	+1
10	Predicting outcomes	423	92	93	+1
02	Initial consonants	429	92	92	+0
*11	Compound words	470	84	91	+7
04	Variant consonant sounds	449	88	90	+2
05	Fact and Fantasy	459	86	88	+2
14	Main idea (Literal)	455	87	88	+1
*24	Use of Table of Contents	434	91	86	-5
*15	Word recognition - Dolch List	388	96	83	-13
22	Word meaning (context)	487	80	82	+2
09	Sequencing events	479	82	82	+0
20	Literal details	488	79	81	+2
21	Cause/effect	501	76	78	+2
19	Main idea (I)	500	76	78	+2
23	Alphabetizing	509	73	75	+2
25	Following 1-step directions	509	73	74	+1
13	Inflectional endings	516	71	73	+2
18	Sound symbol relationship	511	72	72	+0
16	Short vowel sounds	520	70	72	+2
17	Long vowel sounds	527	67	70	+3
26	Following 1-step directions	518	70	70	+0

*These items show a performance discrepancy at or above the 5% level and will be discussed on page 178.

The second analysis, an intuitive one, identified those items which were passed by 70% of the examinees. These attained minimal skills have been listed in Table 57 along with the expected and observed performance percentages.

It is important to note that these skills have been identified empirically (based on student performance) and reflect program strengths.

TABLE 58

Grade Three Test Items with Group Performance Below 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
12	Root words	539	63	63	+0
07	Plural forms in context	538	63	64	+1

Discussion

Root words and plural forms are word attack skills that are introduced in grade 2 (DoDDS scope and sequence) and represent skills in progress for grade 3. These two items also represent the two most difficult items on the third grade test. With a calibration of 539, item 12 is testing the upper limits of the subskill root words, and mid-range for plural forms in context is represented by item 7 (538). Despite the difficulty level and the fact that both represent a skill in progress, 63% of the pupils answered these items correctly, demonstrating good progress in both structural analysis skills. Continued emphasis is suggested for the remaining 37% of the students who were not able to respond correctly.

TABLE 59

Grade Three Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
11	Compound words	470	84	91	+7
24	Table of Contents	434	91	86	-5
15	Word recognition - Dolch List	388	96	83	+13

The items discussed below show a deviation or discrepancy between the expected and observed percent correct at or above the 5% level.

Discussion

Compound Words - While only 84% of the DoDDS third grade pupils were expected (based on their ability) to respond correctly to item 11, an observed 91% actually answered the item correctly. Findings suggest that teachers are doing an excellent job of providing experiences for working with and recognizing compound words. Approximately 9% of the third grade students may need additional instruction in recognizing compound words.

Word Recognition - This skill represents a strength for most third graders. Approximately 83% of the students answered item 15 correctly; however, 96% of the students tested had the ability (a measure on scale equal to or exceeding item difficulty) to answer this item correctly. Findings suggest that additional experiences with word recognition may serve to increase the percentage of students who perform as expected (according to their ability) on this important reading subskill.

A cursory analysis of item 15 suggests that the length of the directions may have been a contributing factor to the performance discrepancy discussed above. Students may benefit from a reminder to read all directions completely before answering.

Approximately 17% of the third graders tested may need additional instructional emphasis in word recognition skills.

Table of Contents - An observed 86% performance level exceeds DoDDS expectations in terms of a 70% performance criterion. Testing mid-range for this important reference skill (434), 5% of the students should have been able to answer this item correctly but for some reason did not. Findings suggest that perhaps supplementary exercises to practice this skill would allow an increased percentage of students to demonstrate skill in use of the Table of Contents. The high performance percentage suggests that this skill, when tested at this difficulty level, is representative of a minimal competency objective for grade 3.

GRADE 3 PERFORMANCE SUMMARY

The findings reported in this section of the report are based on the test results obtained from 13,248 students in third grade classrooms in DoDDS.

Overall performance for DoDDS third graders was exceptionally high. Group performance on 24 of the 26 subskills tested were at or above the 70% level. Approximately 82% of the students answered at least 70% of the items correctly.

Even more difficult skills such as root words and plural forms, when tested at the upper limits, still show successful performance for 63% of the students. Because these represent skills in progress, this performance level reflects program strengths. One would expect less than half of the students to reach optimal levels of development within one instructional year.

Based on test results, DoDDS third graders enter their middle school years with an excellent foundation of reading skills.

The Quality Measure Index (QMI) for 81% of the students was very high (90-100), indicating that objectives selected were appropriate for the grade level and that a valid measure of performance was recorded for the majority of third graders. Low QMI for 19% of the third graders tested may be attributed to the following factors: (1) a large number of students topping the test (answering all items correctly), (2) an unusual amount of guessing, or (3) a small percentage of students may not have been able to transfer answers to the answer sheet consistently.

Grade 3 pupils performed in accordance with their respective ability or measure on scale on all but three items (Table 59). Discrepant performance at or above the 5% level was noted in use of compound words, where observed performance exceeded the expected percent correct.

Other discrepancies were noted in the use of the Table of Contents and recognition of basic sight words. In both cases, however, the discrepancy is incidental to the overall group performance, which is well above the 70% level.

Because the majority of third graders found the basic skills test easy, DoDDS may wish to consider use of this instrument at the end of second grade, selecting items representative of the upper limits of the objectives presently tested for a revised grade 3 test.

Curricular Implications and Recommendations

Grade 3 overall performance was exceptionally high in reading comprehension skills and structural and phonetic analysis. Test objectives appeared to be very appropriate for testing existing reading programs in DoDDS schools.

Implications of results in terms of overall student performance suggest that DoDDS have a very strong primary reading program, particularly in reading comprehension skills. Root words and plural forms in context were two identified skills that represent skills in progress and are inherently more difficult for third graders. Continued instructional emphasis is recommended for both of these important structural analysis skills. The following teaching strategies are included in this report to facilitate specific follow-up at the classroom level:

Related Teaching Strategies

The major technique used to improve structural analysis is through word building, or extension. Root words are reviewed and extended by the addition of a prefix or suffix and used in sentences by the pupils. It is generally not helpful to teach long lists of affixes and require each definition to be memorized. Some affixes have variant meanings and are best discovered through use in context. Durkin (1976) has recommended a procedure for teaching children to process prefixes and suffixes. Durkin writes:

> Thanks to structure, children themselves can often work out the meanings of derived and inflected words even when they do not achieve absolutely correct pronounciations. To do so, they need to know the meaning of the root, once they have identified it, they need to have a strategy not only for dismantling words but also for putting the pieces back together.

The following guidelines for derived and inflected words are recommended instructional strategies:

1. With derived and inflected words, prefixes and suffixes should be mentally separated from the root so that, if the root is not familiar, its pronunciation can be worked out with the help of letter-sound relationships.

2. Once a root is identified, the suffix immediately attached to it should be added. If there is a second suffix, that should be added next. The prefix is added last.*

The analysis - synthesis process for derived and inflected words is illustrated below.

carelessness	unwanted	unenviable
careless	wanted	enviable
care	want	envy
careless	wanted	enviable
carelessness	unwanted	unenviable

---

*From Dolores Durkin, Strategies for Identifying Words. Copyright 1976 by Allyn and Bacon, Inc., Boston, P.54.

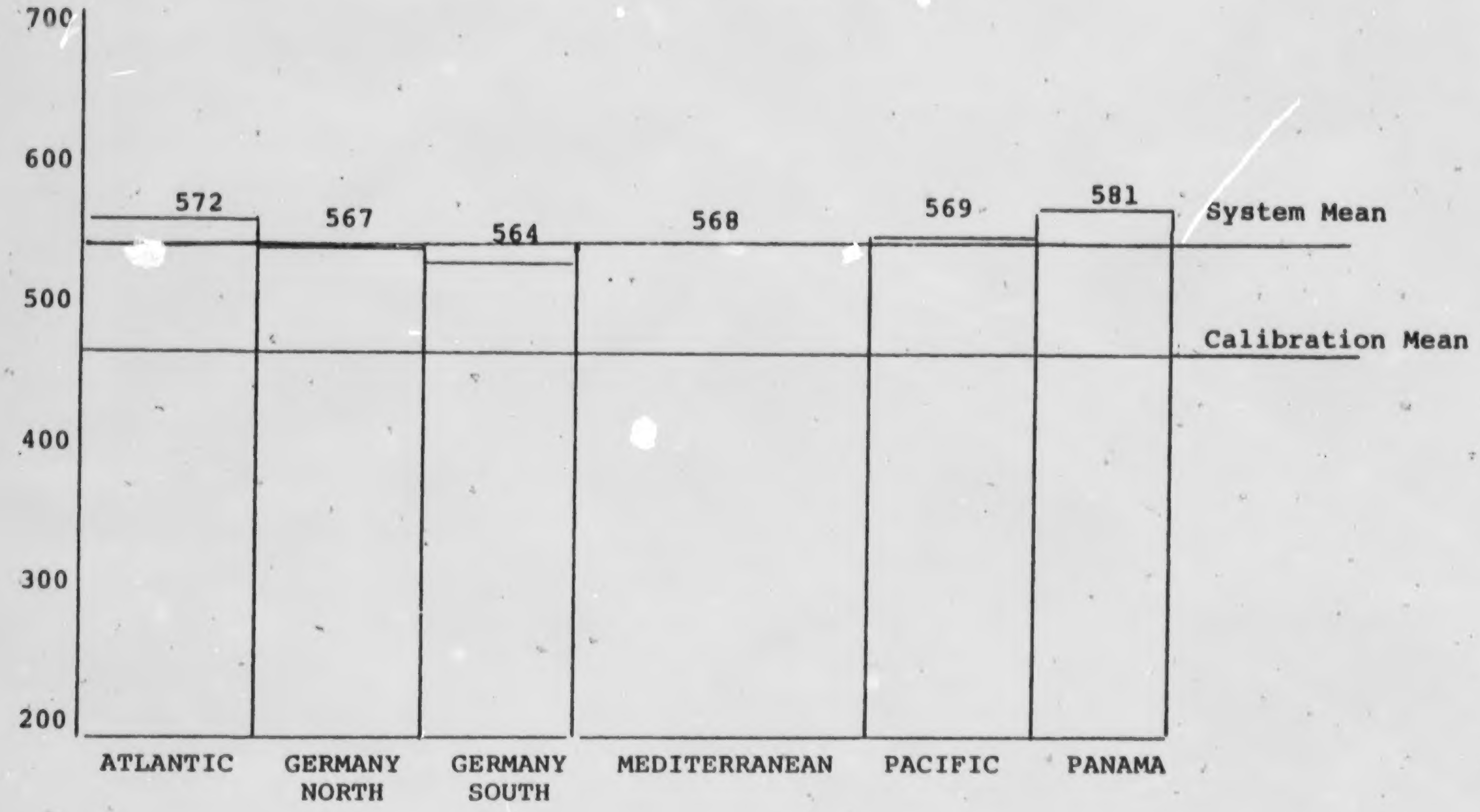
Figure 64 represents regional means for Grade 3. For purposes of comparative analyses, DoDDS overall third grade mean and a calibration sample mean have been included.

All regions were well above the calibration sample mean and within a normal performance range in relation to the stated system mean.

Regional coordinators may wish to apply a similar type of analyses to local data. Use of a 70% criterion for examining performance on all items and for determining existing program strengths and weaknesses may be useful.

FIGURE 64

READING, GRADE 3 REGIONAL MEANS



Reading Test Findings, Curricular Implications and Recommendations

DoDDS Reading Objectives: Fourth Grade

The student should be able to:

- recognize consonant blends
- recognize diphthongs
- recognize vowel digraphs
- recognize consonant digraphs
- identify compound words
- identify root words
- identify contractions
- use prefixes correctly
- use contextual clues for meaning
- recall factual information
- recognize main ideas (literal and interpretive)
- sequence events
- pick out supporting details
- draw conclusions (inferences)
- recognize fact and opinion
- recognize cause and effect
- predict outcomes
- arrange facts in order of importance
- alphabetize (first letter and guide words to second letter)
- use dictionary skills (word definitions, guide words)
- use a glossary or table of contents
- follow directions

Student Performance on Objectives

Approximately 78% of all fourth graders tested correctly answered 70% of the items (Table 55). Overall performance was very good. The findings suggest that the fourth grade test contains appropriate objectives to measure both achievement as well as minimal competence skills.

TABLE 60

Grade 4 Test Items with Group Performance At or Above 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
09	Prefix	393	95	98	+3
01	Consonant digraphs	360	97	98	+1
14	Main idea	415	92	93	+1
05	Compound words	426	91	92	+1
06	Root Words	422	92	92	+0
13	Contextual meaning	427	91	92	+1
12	Recalling factual information	449	86	91	+5
18	Cause/effect	419	92	90	-2
26	Table of Contents	434	89	90	+1
08	Contractions	489	75	88	+13
15	Sequencing	447	87	88	+1
22	Alphabetical order	454	86	87	+1
10	Contextual meaning	462	83	85	+2
17	Arranging facts in order of importance	469	82	82	+0
27	Use of glossary	477	79	81	+2
07	Contractions	478	79	80	+1
21	Drawing conclusions	452	83	77	-6
11	Main idea	478	79	76	-3
02	Consonant blends	496	73	74	+1

The second analysis, an intuitive one, identified those items which were passed by 70% of the examinees. These attained minimal skills have been listed in Table 60, along with the expected and observed performance percentages.

Overall fourth grade performance was almost as high as third grade performance. Because the range of the test was wider for grade four, more items representing upper limits of a skill range were included. This would account for a lower overall mean performance among fourth graders than grade 3 students, and should be taken into consideration when comparing mean performance across grades.

The skills listed in Table 60 represent performance levels within the ability level of most fourth grade students and therefore reflect program strengths.

Table 61 summarizes skills tested with performance percentages below seventy percent.

TABLE 61

Grade 4 Test Items with Group Performance Levels Below 70%

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
16	Identification of important facts	511	67	68	+1
23	Alphabetical order	520	64	65	+1
25	Use of guidewords	515	66	59	-7
19	Recognizing fact and opinion	508	69	56	-13
04	Vowel digraphs	531	59	56	-3
03	Diphthongs	544	53	55	+2
24	Following directions	545	53	53	+0
20	Predicting outcomes	611	26	29	+3

Discussion

Identification of important facts - This item requires interpretive comprehension in that the correct answer must be inferred from a previous statement. Although 68% of the fourth grade pupils answered correctly, continued instructional emphasis is needed to increase the overall percentage of correct responses. DoDDS scope & sequence lists this as an ongoing skill that is necessary for evaluative analyses of reading materials.

Alphabetical order - 65 percent of all grade 4 students were able to alphabetize to the third letter. To increase the percentage of students who can successfully alphabetize, additional instructional opportunities should be made available to 35% of fourth grade students.

Use of guidewords - This item requires a two-step process which might account for only a 59% correct response. With a calibrated difficulty of 515, 66% of the fourth graders were expected, based on their ability, to successfully complete the item. Because the item requires the pupil to find all right answers and then select that which would not be correct would probably account for the discrepancy between expected and observed performance. However, the process used is that which is generally required when searching for words in a dictionary and should be given appropriate instructional emphasis. Specific instructional follow-up may be necessary for 41% of the fourth grade students.

Recognizing fact and opinion - An observed 56% of the fourth grade pupils answered item 19 correctly. The item requires a 2-step process and an understanding of the term "opinion." Introduced in grade 3, this evaluative process skill is given instructional emphasis through grade 7. Opportunity for additional experiences with this critical thinking skill would serve to increase successful performance for the 44% of the pupils unable to respond correctly.

Vowel digraphs - With a calibrated difficulty of 531, vowel digraphs represent one of the more difficult phonetic analysis skills. Because the skill is introduced at first grade and instruction continues through grade 4 (DoDDS scope and sequence), it is reasonable to expect mastery by the end of grade 4. Analysis of the findings shows, however, that only 56% of the grade 4 pupils responded correctly to item 4. Approximately 44% of grade 4 students may need additional instruction and practice with vowel digraphs.

Diphthongs - Item 3 has a calibrated difficulty of 544 and is the third most difficult test item. Performing close to what was expected (based on student ability), 55% of the fourth graders tested responded correctly. Continued experience with dipthongs might be beneficial to the 45% of the pupils who were unable to answer this item correctly.

Following Directions - Grade 4 pupils performed as expected on item 24 with 53% (6,308) responding correctly. Approximately 47% of the system's fourth graders were not able to supply the correct response. The item involves reading a set of directions and then holding a visual image of the correct response in your mind as you select from the choices given. Additional experiences with this type of cognitive task may increase the overall percentage of correct responses. This was the second most difficult item on the test (545).

Predicting Outcomes - With a calibrated difficulty of 611, item 20 requires the child to form a prediction based on the information given in the reading passage. As the most difficult item on the test, it was expected that only 26% of the pupils would respond correctly; however, 29% of the fourth graders successfully answered the item. To raise the percentage of students who are able to use critical reading skills, continued instructional emphasis coupled with a variety of opportunities to practice this skill is advised. Students surpassed their ability on this item, indicating that this skill probably already receives instructional emphasis and represents a program strength. However, because this skill is inherently more difficult for most students, continued learning experiences will enhance performance levels for all students.

TABLE 62

Grade 4 Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
8	Contractions	489	75	88	+13
12	Recalling factual information	449	86	91	+5
19	Recognizing fact and opinion	508	69	56	-13
21	Drawing conclusions	462	83	77	-6
25	Guidewords	515	66	59	-7

Performance Discrepancies

Contractions - Exceeding grade level expectations, 88% of all fourth graders were able to recognize the components of a contraction. Based on student ability only 75% were expected to respond correctly. A deviation of 13% between the expected and observed performance is an indication that possibly (1) teachers are placing a great deal of instructional emphasis on contractions, (2) selected programs or activities tend to reinforce this skill, or (3) this skill represents an exit skill for grade four; i.e., no further instruction (based on scope & sequence) is given beyond grade 4.

Recalling factual information - Grade four students are exceeding system expectations with literal comprehansion of factual information. There was a 5% discrepancy between the expected 86% and the observed 91% of the grade four students who answered item 12 correctly. It is important to note that the remaining 9% of the students tested were unable to complete this recall item, indicating a possible need for additional instruction.

Recognizing fact and opinion - A 13% discrepancy was noted for Item 19. Approximately 69% of the students tested were expected (based on their ability) to answer this item correctly; however, only 56% of the students were able to respond correctly. This percentage falls short of the 70% criterion. Continued instructional emphasis is advisable, as this represents a skill in progress (DoDDS scope and sequence). The negative discrepancy would suggest that 13% of the students have the ability to do an item at this difficulty (508), but perhaps need additional experiences with recognizing differences in styles of reporting information.

Guidewords - The performance discrepancy for item 25 would suggest that 70% of the fourth graders have the ability to answer successfully an item with a calibrated difficulty of 515. Therefore, the data suggest the need for additional instructional emphasis on the use of guidewords.

Grade 4 Performance Summary

The findings reported in this section of the technical report are based on spring test results obtained from 11,902 grade four pupils. Overall performance for DoDDS fourth-graders was excellent. Approximately 78% of the students correctly answered 70% of the items. Even more difficult items (511-545) were answered correctly by over half of the students (Table 61). Test results represent a valid measure of fourth grade performance, as 91% of the students show a Quality Measure Index of 90-100.

Grade 4 pupils performed in accordance with their respective ability (measure on scale) on all except the following objectives, which showed a discrepancy at or above the 5% level:

.contractions
.recalling information
.recognizing fact and opinion
.drawing conclusions
.guidewords

An exceptionally high percentage of correct responses was noted in recognizing contractions and recalling factual information. In both instances the discrepancy was positive.

Other findings revealed that a small percentage of students with a measure on scale (ability) equal to or exceeding item difficulty for recognizing fact and opinion, drawing conclusions and use of guidewords, were not answering these objectives correctly (Table 62). Speculation as to causes will be explored below.

Curricular Implications and Recommendations

Grade 4 overall performance on the basic skills reading test was very good. Approximately 78% of the students responded correctly to 70% of the items. Test results suggest that all objectives selected were appropriate for this grade level.

Continued instructional emphasis is recommended for the following subskills:

- .identification of important facts
- .alphabetical order
- .use of guidewords
- .recognizing fact and opinion
- .vowel digraphs
- .diphthongs
- .following directions
- .predicting outcomes

Less than 70% of all fourth graders were able to answer these items correctly. However, these items range in difficulty from 508-611. With a grade level mean of 552 it is reasonable to assume that additional emphasis could increase the percentage of students mastering these skills.

With a 13% discrepancy, Item 19, recognizing fact and opinion, deserves specific consideration. With overall group ability exceeding item difficulty (508) other factors must be considered. Analysis of the item suggests that word definition is essential to successful performance on this item. Before one is able to recognize a fact from an opinion, an understanding of the terms is necessary. However, teaching the definition of the term "opinion" will not guarantee success with this critical reading skill. The following teaching strategies may prove useful to teachers concerned with helping students master this comprehension skill.

Related Teaching Strategies

It is not always easy to distinguish between facts and opinions, particularly when opinions are not identified in any way. Also, some statements combine both fact and opinion. Some facts are more definite than others and students need a variety of samples to practice recognition skills.

It is also important to keep in mind that an opinion is not necessarily less valid or less useful than a fact. Students should not be led to believe that opinions are valueless. However, they should realize that opinions based on hard facts might be better than those for which there is not much support.

Pupils can learn to analyze statements that are similar to determine how factual they are:

> This is the best restaurant in town.
> This restaurant is the most expensive one in town.

Pupils can also learn to recognize statements that contain qualifying words that identify them as opinions:

> The President believes that. . .
> These pictures seem. . .
> This could mean that. . .

Because inexperienced readers have a tendency to ignore such indicators, it may be necessary to design lessons to help reinforce this strategy.

Karlin (1978) suggests the following activities be used for teaching recognition of fact and opinion statements:

> Newspaper reading provides additional opportunities for students to come to grips with writing that is supposed to be factual and writing that is based on opinion (or on facts and opinion). It will not be difficult to collect newsworthy items reported as fact and editorials that comment on those same events. The way in which several sources treat related events and opinions can be analyzed. Comparisons can also be drawn between newspaper accounts of an event and the treatment of the same event in a news magazine.
>
> Pupils should be encouraged to evaluate opinions on the basis of available information. They can judge how reasonable an opinion is and accept or reject it on suitable grounds (326).*

Figure 65 represents regional means for grade four students. DoDDS system mean and the calibration sample mean are included to facilitate comparison of results.

As indicated in the figure, grade four students scored considerably above the calibration mean. Each region shows an overall reading performance within an acceptable performance range in relation to the system mean.

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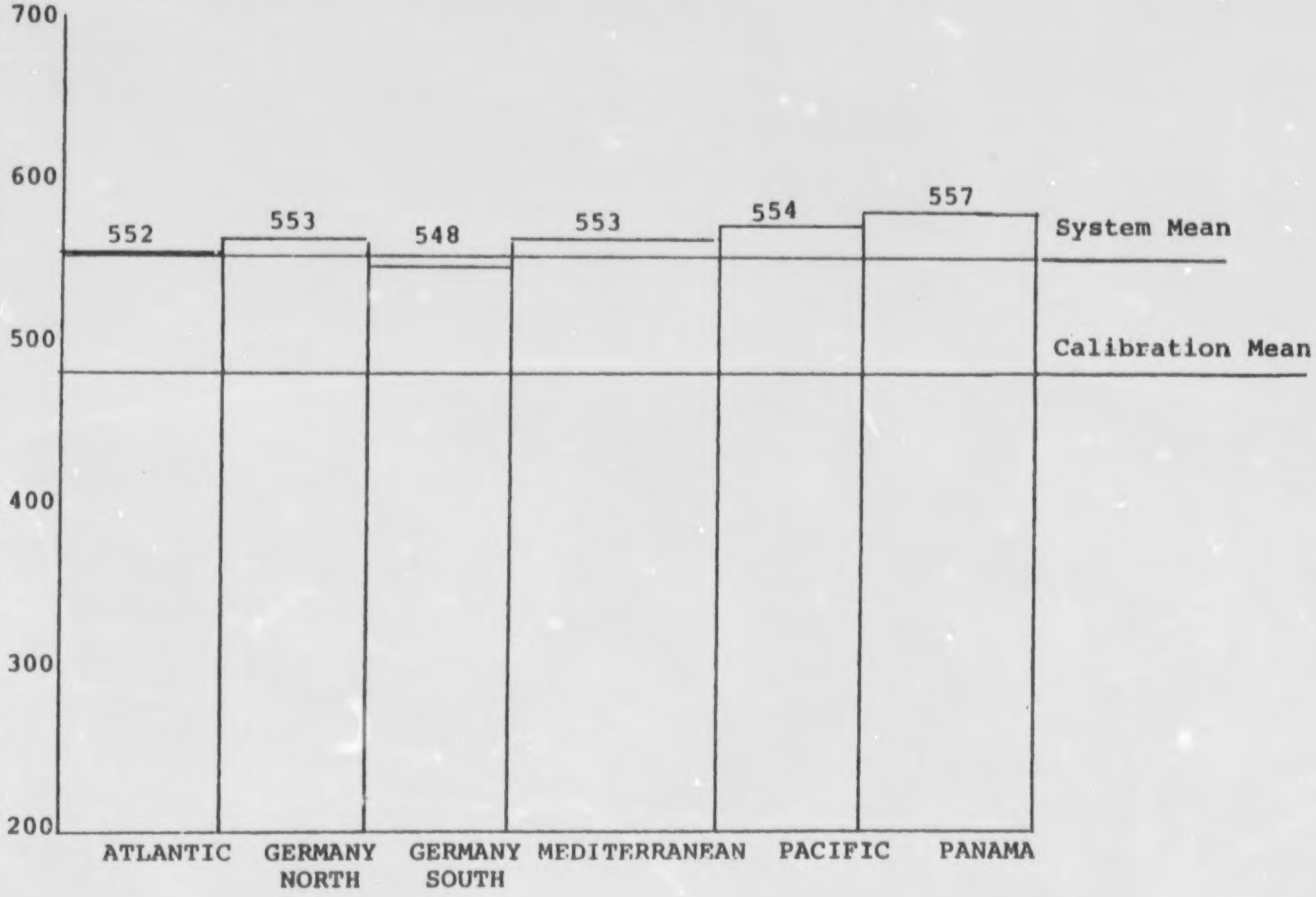
*Karlin, Robert. Teaching Elementary Reading. New York: Harcourt, Brace, Jovanovich, Inc. 1978.

FIGURE 65

READING, GRADE 4 REGIONAL MEANS



Reading Test Findings,
Curricular Implications and Recommendations

DoDDS Reading Objectives: Sixth Grade

The student should be able to:

- recognize plurals
- recognize singular possessives
- recognize contractions
- recognize irregular verb forms
- use prefixes correctly
- use suffixes correctly
- use contextual meaning
- identify author purpose
- identify important facts
- sequence (relationship of events)
- identify main ideas (literal and interpretive)
- identify subordinate details
- identify outcomes
- identify fact and opinion
- identify cause and effect
- compare and contrast
- infer facts and conclusions
- recognize key words or ideas in context
- use analogies (mood/tone)
- recognize false generalizations
- predict outcomes
- follow directions
- use dictionary guidewords

Student Performance on Objectives

Approximately 75% of the sixth grade students correctly answered 70% of the items (Table 55). Findings suggest that the test objectives provided an effective assessment instrument for examining both exit skills and achievement levels for students completing the elementary grades.

TABLE 63

Grade 6 Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
1	Plurals	437	94	94	+0
2	Plural forms	438	94	94	+0
10	Contextual meaning	441	94	94	+0
19	Identify outcomes	459	91	94	+3
4	Contractions	476	88	92	+4
6	Irregular verb forms	456	92	92	+0
11	Identifying facts	459	91	92	+1
*18	Subordinate details	490	85	87	+5
3	Prefixes	487	86	87	+1
* 8	Following directions	508	81	86	+5
17	Word recognition in context	510	80	83	+3
9	Suffixes	505	82	82	+0
25	Author purpose	496	84	80	-4
15	Main idea (I)	518	78	78	+0
12	Cause/effect	524	76	77	+1
14	Sequencing	534	73	77	+4
24	Compare/contrast	533	73	76	+3
13	Main idea	523	76	74	-2
5	Singular possessives	539	71	71	+0
16	Identifying fact/ opinion	544	69	70	+1

*Items have performance discrepancy at or above the 5% level and will be discussed on page 196.

The second analysis, an intuitive one, identified those items which were passed by 70% of the examinees. These attained minimal skills have been listed in Table 63, along with the expected and observed performance percentages. It is important to note that these skills have been identified empirically (based on student performance) and reflect program strengths.

TABLE 64

Grade 6 Test Items with Group Performance Below the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
23	Inferring facts and and conclusions	554	65	65	+0
7	Guidewords	572	58	62	+4
*20	Predicting outcomes	533	73	57	-16
26	Analogy	585	52	52	+0
21	False generalities	590	50	49	-1
22	Cause and effect	615	40	39	-1

*Items have performance discrepancy at or above the 5% level and will be discussed on page 196.

Discussion

Inferring facts and conclusions - 65% of the DoDDS sixth-grade students answered this item correctly. With a calibrated difficulty of 554, students are performing as expected on this item. This is a difficult skill that develops over time. Continued instructional emphasis is advisable. Approximately 35% of the sixth graders tested may need specific instructional assistance to reach levels of competence.

Guidewords - An observed 62% of the students were able to use dictionary guidewords. With a calibrated difficulty of 572, this is a more difficult skill for sixth-graders. Item 7 requires the student to alphabetize to the third letter, finding the word which will not appear on the page with the designated guidewords. More opportunities to practice this skill will increase the likelihood of success. Presently, 38% of the students are not able to respond correctly to this study skill objective. According to DoDDS' scope and sequence, dictionary skills begin in the primary grades and are not taught after grade 6. Children will need to show mastery of this skill by the end of sixth grade as no further instruction may be provided.

Predicting outcomes - Approximately 57% of the sixth graders tested correctly responded to item 7. Because the calibrated difficulty (533) of this item is below the sixth grade mean (591), additional emphasis could increase the percentage of students able to predict outcomes. Approximately 43% of the students did not respond appropriately to this item, which may indicate the need for additional help with critical reading strategies. Further analysis revealed that 16% of the students expected to answer correctly missed the item also. The objective represents an important critical analysis skill and the implications of these findings will be discussed in a later section of this report.

Analogy - Item 26 was the third most difficult test item. Calibrated at 585, 52% of the sixth graders were able to respond correctly, as expected. Because this skill is introduced at grade 6 and considered to be in progress, 52% is an excellent performance level for grade 6.

False generalities - Approximately 49% of the sixth graders tested demonstrated the ability to recognize false generalities. Because of the level of difficulty (590) of this evaluative thinking skill, it is not surprising that 51% of the students did not answer item 21 correctly. Skill areas involving higher levels of thinking develop over time and are dependent upon overall cognitive development. Through continuous instructional emphasis an increase in the percentage of students reaching evaluative levels of reading may be possible. See figure 63 for the range of difficulty for this skill.

Cause and effect - Item 22 represents the most difficult item on the test. With a difficulty value of 615, this item is testing the upper range of this subskill (see Figure 63). An observed 39% of the students tested successfully identified inferred causal relationships.

The remaining 61% of the sixth graders who did not respond correctly may need additional instructional emphasis. All students, due to the difficult nature of this skill, should be given many opportunities throughout the school day to work with identification of causal relationships.

TABLE 65

Grade 6 Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
20	Predicting outcomes	533	73	57	-16
18	Subordinate details	490	85	87	+5
8	Following directions	508	81	86	+5

Performance Discrepancies

Predicting outcomes - With a calibrated difficulty of 533, it was expected that 73% of all sixth graders would be able to answer Item 20 correctly. However, only 57% of the students gave the correct response. Approximately 16% of the students who have the ability to answer a question at this level of difficulty did not respond correctly. Because 43% of all students were unable to predict appropriate outcomes for Item 20, this subskills deserves additional instructional consideration.

Subordinate details - Item 18 shows a positive discrepancy of +5 meaning that 5% of the students answered this item even though the item's difficulty exceeded their predicted ability or measure on scale. Eighty-seven percent of DoDDS sixth-graders demonstrated an ability to identify subordinate details within a reading passage. This performance exceeds system expectations as defined by a 70% group performance criterion. Thirteen percent of grade 6 students may need additional help with identifying subordinate details. Overall performance on this skill represents a program strength.

Following directions - Eighty-six percent of the sixth-graders tested answered Item 8 correctly. This represents a 5% positive discrepancy indicating that most sixth-graders are able to answer questions that require (1) an understanding of directionality, (2) use of map symbols, and (3) comprehension of written directions. While the majority of sixth-graders seem to have this skill in hand, it is important to note that 14% of the students may need additional instruction to acquire this skill.

Grade 6 Performance Summary

Spring test results for 9,293 sixth-grade students provided the data for this section of the technical report.

Exceeding the national calibration mean (535) by a considerable margin, sixth grade overall performance was generally very good. Approximately 75% of the students tested correctly answered 70% of the items. With no major discrepancies between observed and expected student performance, the data suggest that the test very closely measures existing curriculum. A high quality of measure index (QMI) for 93% of the students validates the appropriateness of the test objectives providing a valid measure of student performance.

Program strengths are reflected in structural analysis skills as well as most areas of comprehension, where performance percentages are well above 70% (see Table 63).

Items measuring skills in predicting, inferring, generalizing and abstracting concepts represent skill areas in progress. Observed performance percentages on most of these skills, although below 70%, are at or above the 50% level, and represent acceptable performance for sixth grade.

Curricular Implications and Recommendations

Overall performance for grade 6 on the basic skills reading test was generally high. Students demonstrated strengths in structural analysis, literal and interpretive comprehension, and word meaning. Approximately 75% of the sixth grade student responded correctly to 70% of the items. Analysis of the match between performance and curriculum suggest that objectives selected were appropriate for this grade level.

More difficult skills with performance percentages below 70% may need additional instructional emphasis. They are:

inferring facts and conclusions
guidewords
predicting outcomes
analogy
false generalities
cause and effect

Ranging in difficulty from 533-615, most of these items are above the national calibration mean (535) for grade 6. With a grade level mean of 591 it is reasonable to assume that additional instructional emphasis may increase the percentage of students able to move toward levels of mastery for each of the above mentioned skills.

Related Teaching Strategies

Special attention should be given to use of guidewords, as it is unlikely that this skill will be emphasized in grades 7-12. As pupils progress through the grades and read more widely, they will encounter more words they have never seen, used, or heard. Advanced readers are more likely to turn to the dictionary for word meaning than for pronunciation.

In order to use a dictionary efficiently, pupils must learn to locate entry words. This involves knowledge of alphabetical order and the use of guidewords as well as the ability ot recognize root words.

Practice is recommended for variant spellings and with words such as *hickories* and *hibernated*, both of which are not entry words but appear in the singular and present tense, respectively.

In the area of reading comprehension, critical thinking skills such as inferring, concluding, predicting, and generalizing all deserve continued emphasis.

In 1967, Guszak conducted an investigation that has contributed significantly to our thinking about the teaching of reading comprehension. The purpose of this study was to determine the types of questions teachers used to stimulate their students' reading comprehension. Three findings have particular significance for DoDDS teachers in relation to the basic skills test findings.

First, Guszak found that the vast majority of teachers' questions, overall and at each grade level, were literal, calling for recall of specific information.

Second, although evaluation questions requiring judgments on the part of students were the next most frequently asked, Guszak indicated that the majority of such questions were *closed* questions, requiring only yes or no responses.

Third, he found that inferential questions, that is, conjecture and explanation combined, were third in order of frequency, even though the materials used in the classes were amenable to more emphasis on questions of this nature. Teachers must make a conscious effort to work with questions at the inferential level and may need inservice training on use of taxonomies and questioning strategies to develop this teaching skill. Students moving into increased amounts of content reading will benefit greatly from development of critical reading strategies.*

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*Guszak, Frank James. (1967). "Teachers' Questions and Level of Reading Comprehension." *The Evaluation of Childrens' Reading Achievement*, edited by Thomas Barrett. Newark, Delaware, International Reading Association, pp. 97-110.

Of the critical reading skills, Predicting Outcomes, deserves special attention, as group findings indicate a 16% negative discrepancy. The data suggest that although 73% of the students tested have the ability to answer items at this level of difficulty (533), 16% failed to demonstrate that ability to predict outcomes. Requiring comprehension of information and ideas, predicting outcomes calls for convergent (the process of seeing relationships) thinking through inductive reasoning as well as divergent thought processes involving specific implications and applications of information and ideas to possible outcomes.

Implications for this subskill suggest that increased instructional emphasis and opportunities to practice this skill would increase the percentage of students demonstrating an ability to predict outcomes. Based on the findings that literal and interpretive comprehension skills appear to be program strengths (see Table 63), students having a firm foundation will be most receptive to the challenge of critical thinking and indepth analysis of all written material.

Teachers should be encouraged to provide ample opportunities to raise questions about the accuracy of the ideas and information students acquire from literature, social science and science textbooks. Magazines and news articles are good sources of materials to recognize predictions based on factual information, and to question accuracy of reporting.

Final recommendations to teachers when raising critical thinking levels through questioning strategies:

1) Remember to increase the "wait time" after each successively more difficult question is asked. Give children a chance to think.

2) To encourage participation at high levels, dignify all responses but do not praise as this tends to narrow the possibility to one right answer.

3) Avoid "closed" questions that can only be answered "yes" or "no."

4) Encourage children to qualify their answers to help them clarify their thoughts... When you say "wrinkly," what do you mean? Or, How do you know this is hopeless?

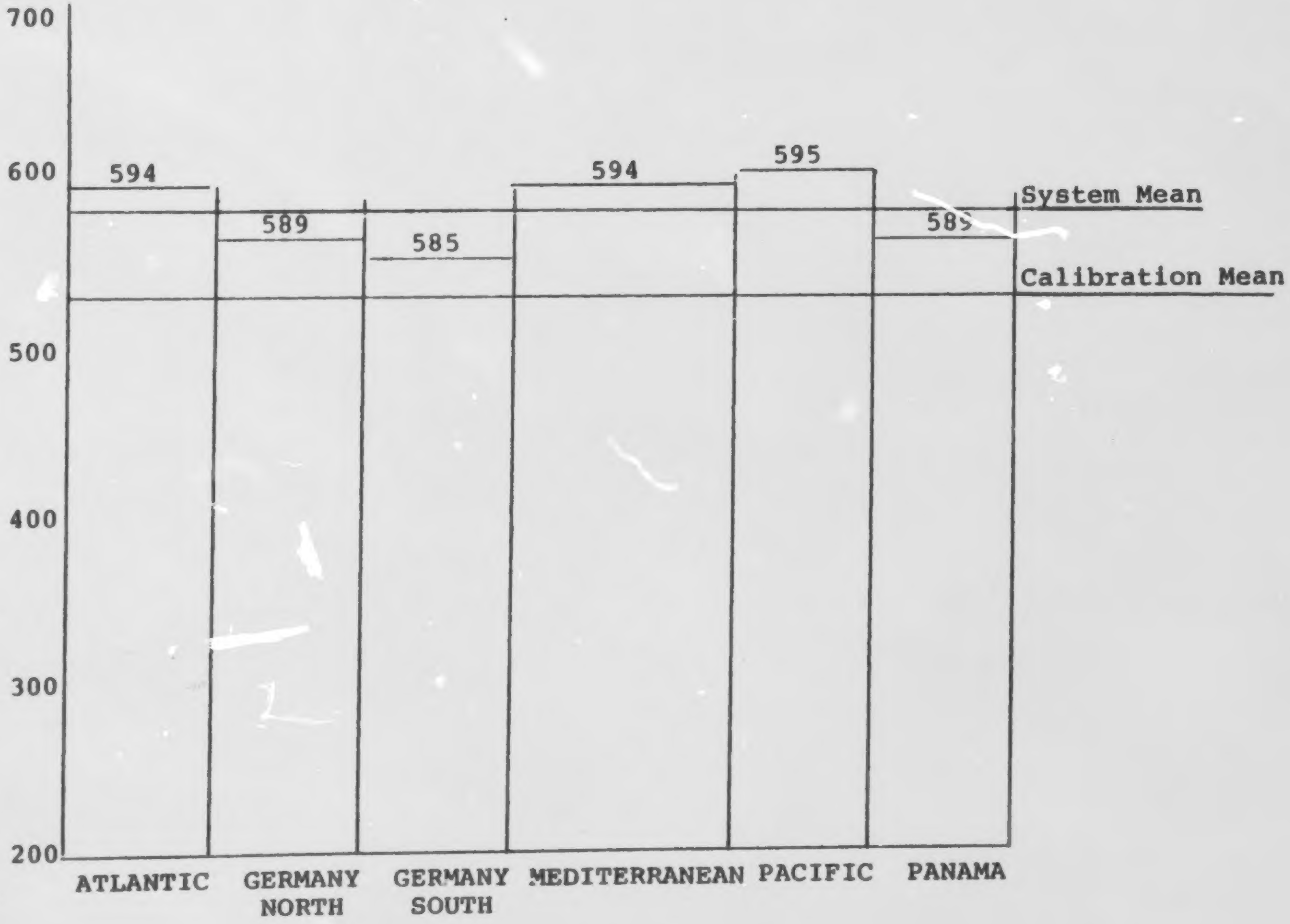
5) Plan your questioning strategies so you take children to the upper limits gradually.

6) Use questioning strategies all day so children learn to question and think critically in all content areas. It must become a way of thinking.

Figure 66 represents regional means for grade 6 in relation to DoDDS system mean and the calibration sample mean. Regional coordinators may wish to apply a similar 70% criterion for analyses, comparing regional findings with those discussed previously in this report.

FIGURE 66

READING, GRADE 6 REGIONAL MEANS



Reading Test Findings,
Curricular Implications and Recommendations

DoDDS Reading Objectives: Ninth Grade

The student should be able to:

- use suffixes correctly
- use plurals correctly
- use possessives correctly
- identify word origins
- identify main ideas (literal and evaluative)
- identify cause and effect
- recognize bias
- recognize author point of view
- compare and contrast
- use analogies
- identify similes and metaphors
- interpret mood and tone
- identify plot components
- analyze character
- interpret figurative language
- interpret imagery
- follow directions
- interpret information (graphs and charts)
- use synonyms
- use antonyms
- use a library card catalog
- use dictionary definitions
- use a dictionary pronunciation key
- use an index
- use dictionary guidewords

Student Performance on Objectives

Approximately 52% of the ninth graders correctly answered 70% of the items. Using a cut score of 617, the Administrative summary was used to determine the percentage of students with a measure on scale at or above 617 (see Appendix).

Approximately 95% of the students tested had a high QMI (Quality Measure Index) indicating that objectives selected were highly appropriate for the grade level, and that the test results are valid.

Testing more objectives and at higher levels of difficulty, the ninth grade test was the most difficult basic skills test. Analysis of the test profile reveals that there are proportionately more items testing optimal levels (upper limits) of subskill ranges. The test is directly reflective of the DoDDS scope and sequence of reading skills, which is designed to take students to the upper limits of evaluative reading comprehension.

TABLE 66

Grade 9 Reading Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
12	Card catalog	488	92	96	+4
10	Index	489	92	91	-1
*06	Dictionary pronunciation key	542	80	88	+8
13	Following directions	508	89	87	-2
20	Compare/contrast	533	83	86	+3
*11	Card catalog	491	92	80	-12
14	Main idea	562	73	77	+4
07	Word definitions	554	76	73	-3
*09	Guidewords	572	75	69	+6
03	Suffix	563	72	72	+0
16	Interpreting information	564	73	71	-2
15	Interpreting information	570	70	70	+0

*Items have a performance discrepancy at or above the 5% level and will be discussed on page 208.

The second analysis, an intuitive one, identified those items which were passed by 70% of the examinees. These attained minimal skills have been listed in Table 66, along with the expected and observed performance percentages. It is important to note that these skills have been identified empirically (based on student performance) and reflect program strengths.

TABLE 67

Grade 9 Test Items with Group Performance Below the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
*28	Similes	592	61	69	+8
*21	Main idea (evaluation)	590	62	69	+7
*19	Identifying components of plot	599	58	66	+8
22	Interpreting mood/tone	574	68	67	-1
29	Analogy	585	64	64	+0
04	Antonyms	557	75	64	-11
*25	Figurative language	578	67	62	-5
05	Synonym	596	59	62	+3
*18	Cause/effect	615	50	61	+11
*26	Imagery	571	70	61	-9
*23	Point of view	554	76	59	-17
02	Possessives	603	56	55	-1
08	Word origin	605	55	54	-1
17	Character analysis	640	39	52	+13
24	Recognizing bias	621	48	44	-4
27	Metaphor	647	36	35	-1
01	Plurals	665	28	27	-1

*Items have a performance discrepancy at or above the 5% level and will be discussed on pages 204-205.

Discussion

Similes - Very close to 70% of all ninth graders were able to identify a simile. Because only 62% of the students were expected to answer item 28 correctly, a positive discrepancy of 8% was noted. This finding suggests that 8% of all ninth graders are able to respond correctly for this skill even though the difficulty of the item exceeds their measure on scale, indicating outstanding performance. However, approximately 31% of the DoDDS ninth graders may need help in identification of similes.

Main idea - Item 21 assesses the student's ability to recognize the main idea of a passage at the evaluative level. With a calibrated difficulty of 590, an observed 69% of all ninth graders are able to identify a main idea. Approximately 7% of the ninth graders tested are responding correctly to this item, even though its difficulty (590) exceeds their ability as defined by a measure on scale. Unable to answer correctly, 31% of the students may need additional evaluative reading experiences.

Identifying components of plot - Once again, ninth graders showed a positive discrepancy for item 19 by performing better (68%) than was expected (58%). Approximately 8% of the students were able to answer this item correctly despite a high difficulty value (599). Overall group ability suggests that increased instructional input dealing with identification of plot components could increase the overall percentage of students able to perform this skill; however, it is important to note that this item is testing the upper limits of this skill. A performance percentage of 68% is excellent performance for a difficult skill.

Interpreting mood/tone - Ninth grade students performed as expected based on student ability and item difficulty. Very close to 70% (67%) of the students were able to respond correctly to item 22, selecting the appropriate mood of the passage. This is a skill in progress and continued emphasis may serve to increase the percentage of successful student performance for this subskill. It is important to note that 33% of all ninth graders may not be able to recognize the mood and tone of a written passage. These students may need increased learning opportunities.

Analogy - Although overall performance was below 70%, the group performed as expected on item 29. Given the difficult nature of this subskill, the observed 64% should be considered a very respectable performance level for 9th graders. The remaining 36% of the students may need continued instructional emphasis to attain higher levels of competence in use of analogy.

Antonyms - This subskill deserves consideration, as students did not perform as well as expected. Although 75% of the ninth graders had the ability to answer item 4 correctly, only 64% did so. Possible reasons for an 11% discrepancy will be discussed in a later section of this report. Findings suggest that 36% of all ninth graders may not know or cannot recall the definition of an antonym.

Synonym - With a calibrated difficulty of 596, ninth graders performed better than expected on item 5, with 62% of the students answering correctly. Increased instructional emphasis may be necessary to provide the remaining 38% with facility in this important vocabulary skill.

Cause - effect - Calibrated at a difficulty of 615, only 50% were expected to answer item 18 correctly. However, an observed 61% of the students demonstrated outstanding ability to identify causal relationships. Approximately 11% of the ninth graders tested were able to identify cause and effect even when the calibrated difficulty of the item exceeded their measure on scale. Although 61% falls short of the system criteria of 70%, the difficulty level of the item must be considered. It is important to note that over half of the ninth graders can function at the high end of the range of skill difficulty (see Figure 63). Because this is an important interpretive comprehension skill, continued interest and special instructional emphasis should be given to identification of causal relationships. Approximately 39% of DoDDS ninth graders may need additional help in identifying causal relationships.

Imagery - This subskill shows a performance discrepancy of 9%. Approximately 70% of the students were expected to answer item 26 correctly; however, only 61% were successful. Additional instructional emphasis could increase the percentage of students demonstrating an understanding of the use of imagery through figurative language. This represents a skill in progress and because it involves abstractions, a 61% performance level is very respectable for ninth graders.

Plurals - Calibrated at 665, item 1 was the most difficult item on the ninth grade test. Only 27% of the students were able to select the appropriate spelling of "Joneses." Seventy-five percent (see Table 67) of the students selected "Jones's" as the correct answer, confusing possessives and use of the apostrophe with plural forms. Specific instruction would no doubt move a majority of the students toward mastery of this skill. Poor performance may be attributed to the unusual example presented in item 1, and that the item represents the uppermost limit of this skill.

TABLE 68

Grade 9 Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
04	Antonyms	557	75	64	-11
09	Guidewords	572	69	75	+6
06	Dictionary pronunciation key	542	80	88	+8
11	Card catalog	491	92	80	-12
23	Point of view	554	76	59	-17
26	Imagery	571	70	61	-9
25	Figurative language	578	67	62	-5
28	Similes	592	61	69	+8
18	Cause/effect	615	50	61	+11
17	Character analysis	640	39	52	+13
21	Main idea (evaluative)	590	62	69	+7
19	Identifying components of plot	599	58	66	+8

Discussion

Performance Discrepancies

Antonyms - An 11% deviation was noted for item 4, indicating that 765 students missed this item even though it was within their ability to answer correctly. Definition of the word antonym may be a contributing cause for the discrepancy. Instructional emphasis for antonyms generally occurs in the elementary grades and perhaps a number of ninth graders have forgotten the definition of the word. A higher percentage of sixth graders might have been able to answer this item correctly because of proximity of instruction. A brief review of antonyms might increase the percentage of ninth graders responding appropriately to item 4.

Guidewords - Student performance exceeded system expectations. However, continued instructional emphasis will allow all students to master this dictionary skill. At 6th grade, only 62% of the students could alphabetize to the third letter and effectively use guidewords.

Dictionary pronunciation key - With an overall performance of 88%, 8% of the students are performing above their ability on this item. Apparently, this is a skill teachers might expect everyone to master. Students are exceeding system criteria of 70%.

Card catalog - Perhaps the 12% deviation can be explained by proximity of instruction or lack of use. Analysis of Table 68 reveals that 11% of the students selected #3 indicating they simply did not know where to locate the catalog number. Because reference skills are taught in grades 4-6 (DoDDS scope and sequence) students may have forgotten skills previously learned if they have not been used recently.

This objective may have been more appropriate for grade 6; however, one must note that 80% of the ninth graders do show mastery of this skill.

Point of View - A 17% negative discrepancy should be given special consideration aside from a performance below a 70% level: 1,183 students who have the ability to answer this item correctly did not. Implications of these findings will be discussed in another section of this report.

Imagery - With a difficulty ranging from 401 to 652, this skill should receive continued instruction. Students whose measure on scale would expect them to answer item 26 successfully (9%), may need a few directed lessons and opportunities to practice use of imagery. Dealing with abstractions may not be attainable by all students, however increased opportunity to work with imagery should increase the percentage of students moving toward mastery of this reading subskill.

Figurative Language - Related to imagery, the use of figurative language depends on one's ability to abstract reality. Although a 5% discrepancy is noted in the data, it is important to note that a 62% performance level is very respectable for this skill.

Similes - This skill is apparently receiving some instructional emphasis as 8% of the students exceeded their own ability by answering this item correctly. One must assume that, for these students, this was an easy item, perhaps due to proximity of recent instruction and many opportunities to practice this skill. Overall performance approached system expectations at an observed 69%.

likely to be representative of those skills that, developmentally, are considered to be "in progress." Continued instructional emphasis is recommended as competence is more difficult to attain and is often a gradual process with more cognitively demanding skills.

Student performance exceeded item difficulty on the following skills:

- .similes
- .evaluative main idea
- .components of the plot
- .character analysis
- .cause/effect

Implications of these findings suggest that these skills are presently receiving instructional emphasis and therefore capable students find them within their ability.

Negative discrepant performances were noted in use of (1) antonyms (2) card catalog (3) imagery, and (4) point of view. In each case, student ability exceeded item difficulty, suggesting that skills tested could improve with additional instructional emphasis.

Recommendations and Related Teaching Strategies

Implications of student performance on item 4, antonyms, suggests that students may need to review the definition of the word. This objective may have been more appropriately placed at the sixth grade level. Proximity of instruction may account for some of the 11% deviation from the expected percent correct.

Exceeding the 70% criterion, performance on item 11, use of the card catalog, may be a good indication that study skills represent a group of skills that all students can master.

A 12% negative discrepancy can probably be attributed to proximity of instruction as this skill is introduced in grade 4 (DoDDS scope and sequence). This may also be an indication that not all students are required to practice this skill and therefore missed an item that should have been easy for them.

Plural forms and use of the apostrophe may need additional instructional emphasis. Only 27% of all ninth graders could appropriately apply the rule for plural endings. Although the item selected an unusual example, it is very likely that students will encounter similar examples in their daily lives.

Cause - effect - Although below the 70% level, students exceeded expected performance level by 11%. Calibrated at 615 , this item tests the upper range of this skill (440-663) and therefore 61% is a very satisfactory level of performance for ninth grade. Because this is an important reading skill and because the difficulty is ongoing, instructional emphasis is advisable.

Character analysis - This is a skill in progress and although performance is below the 70% level, over half of the students (52%) responded correctly to item 17. As indicated by Figure 63, 640 presents the highest level of the range of difficulty for this skill. With continued instruction, the remaining 48% of the students should move toward mastery of characterization skills.

Main idea - This item represents a very satisfactory performance level. Almost 70% (69%) of all ninth graders were able to identify the main idea by use of evaluative comprehension skills. Further, 77% of these students found this skill within their ability even though the item difficulty exceeded their measure on scale (ability).

Identifying components of plot - Because this is a skill in progress, a 66% performance level would appear to be satisfactory at the ninth grade level. High school literature courses should continue to provide opportunities to analyze story line and components. Eight percent of the students who answered item 19 correctly had a measure on scale below the difficulty value 599 of the item suggesting that a supportive instructional program is in progress.

Grade 9 Performance Summary

The findings reported in this section of the technical report are based on test results obtained from 6,960 ninth grade students.

With a mean score of 616, system ninth graders exceeded the National Calibration Mean of 576. Fifty-two percent of all ninth graders answered 70% of the items correctly.

The ninth grade test has, proportionately, more difficult items than any of the other four reading tests. This in part explains the lower percentage of students passing 70% of the items and the high cut score. A high quality of measure index 90-100 for 95% of the ninth graders tested suggests the test instrument provides a valid measure of performance for most students.

With the exception of two objectives, card catalog and antonyms, test items representing skill objectives were appropriate for the grade level. Both of the items measuring these skills showed a negative discrepant performance reflecting perhaps proximity of instruction and may be more appropriately placed at grade 6. The rationale for constructing a more difficult test at grade 9 rather than grade 11 was to determine which students might need additional assistance with development of higher levels of thinking during their high school years.

Curricular Implications and Recommendations

As mentioned in the performance summary, the grade 9 test was the most difficult of the basic skills reading tests. Designed to measure achievement of critical reading skills, test objectives reach the upper limits of most skill ranges.

Regardless of the increased difficulty, the high percentage of QMI's between 90 and 100 suggest that objectives not only reflect existing reading curriculum, but also provide valid measure of ninth grade performance.

Program strengths are implied by the high percentage of student performance on the following items:

.card catalog
.use of index
.dictionary pronunciation key
.word definitions
.following directions
.compare and contrast
.main idea
.use of guidewords
.suffixes
.interpreting information

These skills were also identified as representative of minimal competence skills all students should master, and could be considered exit skills for ninth grade, as no further formal instruction is provided.

Group performance percentages below the 70% intuitive criterion were observed in items ranging in difficulty from 574-665. These skills were considered to be testing upper limits of cognition and therefore were useful in supplying information relative to optimal performance on specific reading objectives. Items measuring these skills required students to interpret relationships (see Table 67).

Because not all students reach optimal levels of cognitive development, 70% as a performance criterion may not be reasonable for all skills. Higher level skills are most

Author point of view is assumed to be a skill in progress and the book Reading for Power and Flexibility, by J.E. Sparks and Carl Johnson, would serve as an excellent source book for high school teachers regardless of curriculum content. English literature classes may already use similar questioning strategies. Opportunities to practice both convergent and divergent thinking skills in all content areas will enhance creative as well as critical reading skills, maximizing comprehension. College-bound students should have numerous opportunities to analyze critically a wide variety of reading materials.

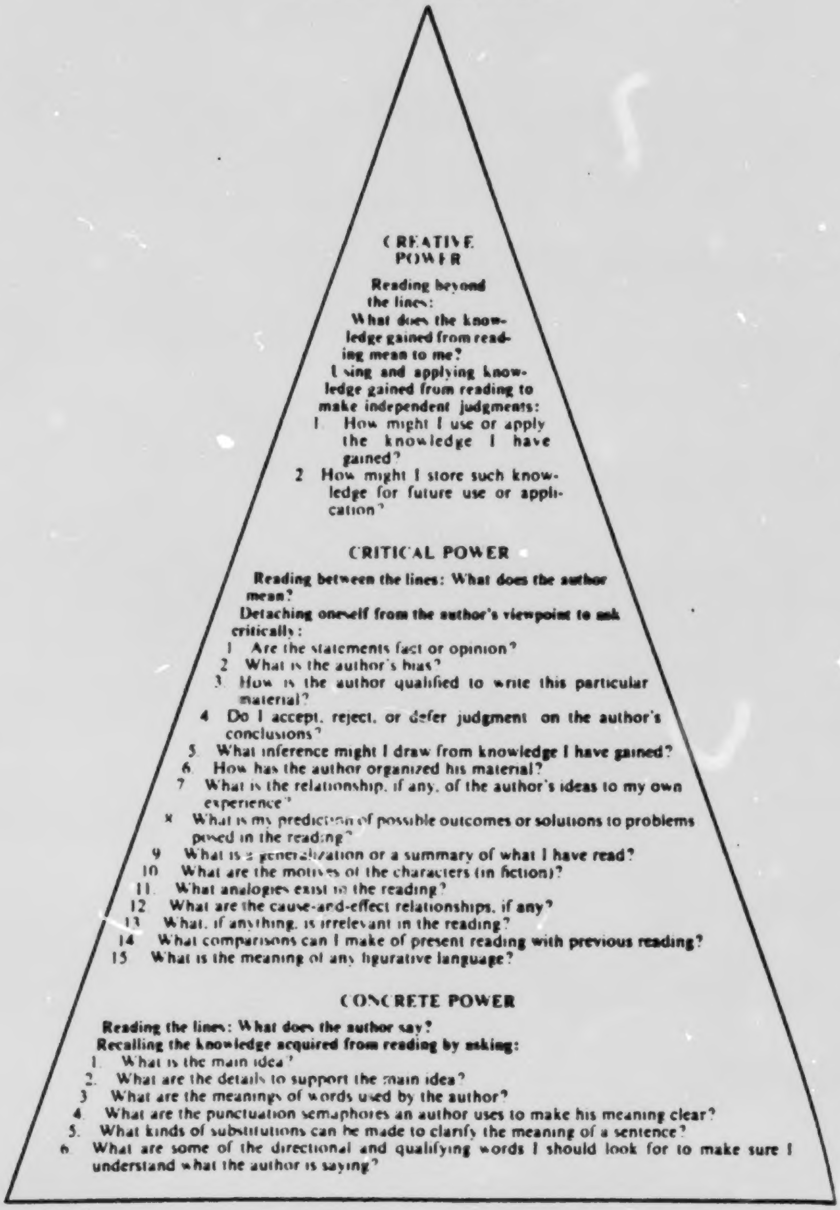
Although 41% of the ninth graders tested were not able to recognize the point of view in a passage, 59% found this skill within their ability. Continued experiences with this skill will probably increase the percentage of students demonstrating mastery at this level of difficulty.

Imagery and figurative language are inherently more difficult subskills. The language patterns are unpredictable, increasing the overall reading difficulty level of a passage. Students tested showed strengths in dealing with similes, plot and character analysis, and may only need additional opportunities to word with imagery and symbolic meanings.

Figure 67 represents regional means in relation to the DoDDS system mean and the sample calibration mean for grade 9. Regional coordinators may wish to apply a similar criterion for analysis, comparing regional findings with those discussed previously in this report.

The following drawing represents the pyramid of power as presented by Sparks and Johnson. Specific teaching strategies could be generated for the questions listed in the pyramid.

Pyramid of Reading Power



CREATIVE POWER

Reading beyond the lines: What does the knowledge gained from reading mean to me?

Using and applying knowledge gained from reading to make independent judgments:

1. How might I use or apply the knowledge I have gained?
2. How might I store such knowledge for future use or application?

CRITICAL POWER

Reading between the lines: What does the author mean?

Detaching oneself from the author's viewpoint to ask critically:

1. Are the statements fact or opinion?
2. What is the author's bias?
3. How is the author qualified to write this particular material?
4. Do I accept, reject, or defer judgment on the author's conclusions?
5. What inference might I draw from knowledge I have gained?
6. How has the author organized his material?
7. What is the relationship, if any, of the author's ideas to my own experience?
8. What is my prediction of possible outcomes or solutions to problems posed in the reading?
9. What is a generalization or a summary of what I have read?
10. What are the motives of the characters (in fiction)?
11. What analogies exist in the reading?
12. What are the cause-and-effect relationships, if any?
13. What, if anything, is irrelevant in the reading?
14. What comparisons can I make of present reading with previous reading?
15. What is the meaning of any figurative language?

CONCRETE POWER

Reading the lines: What does the author say?

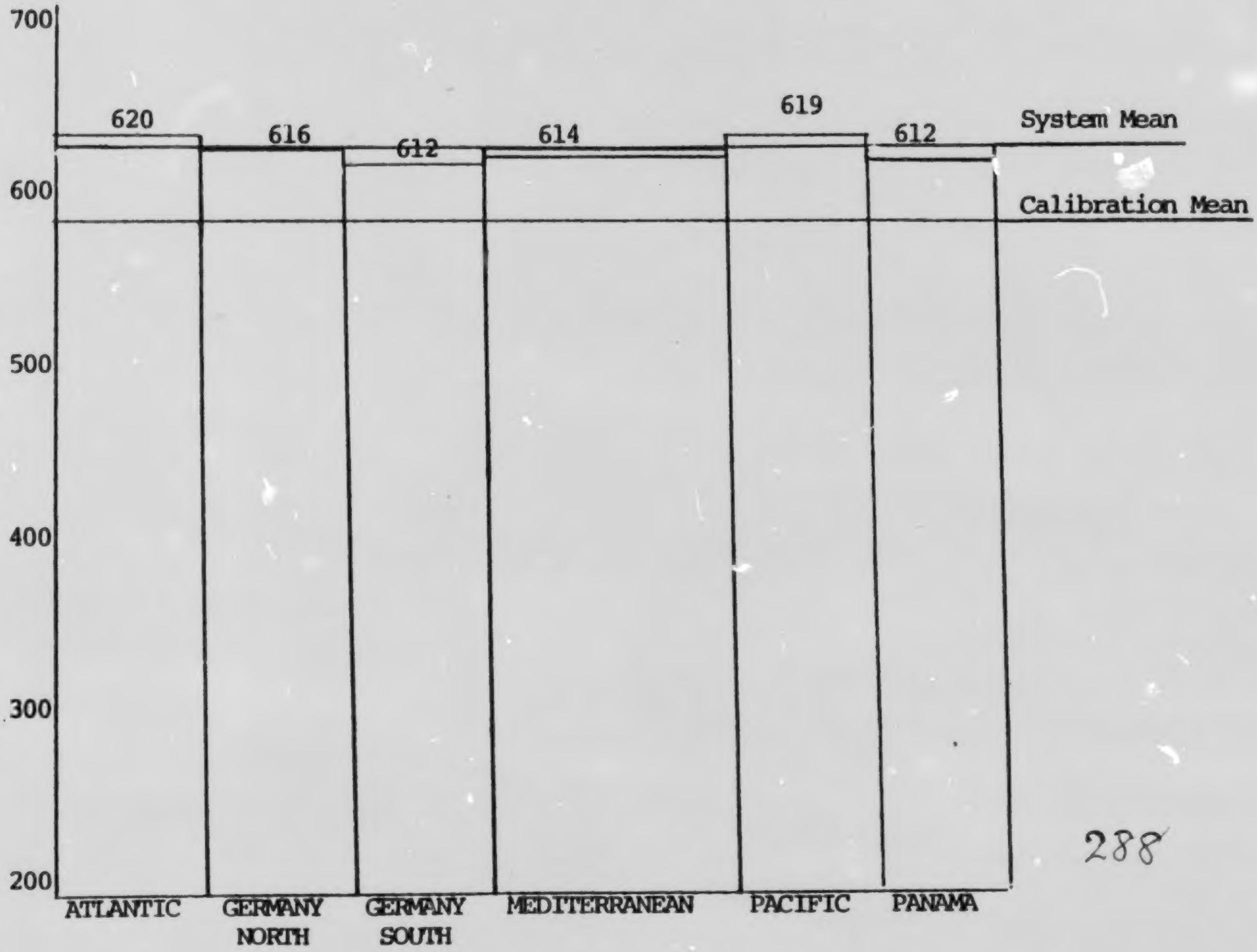
Recalling the knowledge acquired from reading by asking:

1. What is the main idea?
2. What are the details to support the main idea?
3. What are the meanings of words used by the author?
4. What are the punctuation semaphores an author uses to make his meaning clear?
5. What kinds of substitutions can be made to clarify the meaning of a sentence?
6. What are some of the directional and qualifying words I should look for to make sure I understand what the author is saying?

Sparks, J.E., Johnson, Carl E. Reading for Power and Flexibility. Beverly Hills: Glencoe Press, 1970, p. 201.

FIGURE 67

READING, GRADE 9 REGIONAL MEANS



Reading Test Findings, Curricular Implications and Recommendations

DoDDS Reading Objectives: Eleventh Grade

The student should be able to:

- analyze character
- understand literal meaning
- understand symbolic meaning
- identify setting and theme
- identify cause and effect
- identify subordinate detail
- identify motives
- identify point of view
- compare and contrast
- pick out universal themes
- interpret figurative language and imagery
- predict outcomes
- recognize propaganda
- use analogies
- identify main ideas (literal, interpretive, evaluative)
- identify solutions
- recognize author bias
- recognize conclusions and generalizations
- locate information
- recognize synonyms
- recognize weighted words
- locate information
- follow directions

Student Performance on objectives

As shown in Table 55, 74% of the eleventh grade students correctly answered 70% of the items. Based on the rationale that grade eleven students are nearing the end of their public education, the basic skills test at this level has proportionately fewer items selected from the upper limits of each subskill range. Therefore, the eleventh grade test, while testing more difficult skills than the ninth, is lower in overall difficulty.

Eleventh grade overall performance was very good. Even on items testing inherently more difficult skills, almost 50% of the students demonstrated competence.

Objectives selected seemed appropriate to the grade level in relation to existing reading programs.

TABLE 69

Grade 11 Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
*09	Compare/contrast	512	90	96	+6
20	Literal meaning	502	92	95	+3
07	Subordinate detail	488	94	94	+0
19	Contextual meaning	506	91	90	-1
23	Figurative language/ imagery	516	89	89	+0
03	Following directions	508	91	88	-3
10	Predicting outcomes	533	86	87	+1
*05	Main idea	550	81	86	+5
25	Universal theme	538	85	86	+1
12	Motive	540	84	85	+1
*01	Locating information	514	90	85	-5
*13	Evaluative main idea	563	77	85	+8
11	Characterization	553	80	81	+1
*14	Recognizing conclusions	593	65	79	+14
26	Analogy	572	74	75	+1
*18	Synonyms	596	64	74	+10
22	Figurative language	578	71	72	+1
*02	Locating information	523	88	72	-16

*Items have a performance discrepancy at or above the 5% level and will be discussed on page 217.

The second analysis, an intuitive one, identified those items which were passed by 70% of the examinees. These attained minimal skills have been listed in Table 69, along with the expected and observed performance percentages. It is important to note that these skills have been identified empirically (based on student performance) and reflect program strengths.

Items with performance percentages below 70% are listed in Table 70.

TABLE 70

Grade 11 Test Items with Group Performance Below 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
08	Cause/effect	590	67	68	+1
*15	Point of view	554	80	61	-19
21	Symbolic meaning	621	53	53	+0
16	Fact/opinion	637	45	49	+4
24	Identifying theme	631	48	48	+0
06	Identifying solutions	633	47	46	-1
04	Interpreting information	654	37	37	+0
*17	Recognizing propaganda	637	45	34	-11

*Items have a performance discrepancy at or above the 5% level and will be discussed on pages 217-218.

Discussion

Cause/effect - Calibrated at 590, item 8 was answered by 68% of the students. This performance comes very close to the 70% system expectations. This skill also shows an increased percentage of performance over grade nine's 61%; however, the grade 9 item was slightly more difficult (615).

Point of view - Item 15 deserves special consideration. With a 19% discrepancy, only 61% out of an expected 80% identified the appropriate point of view. Although this performance level falls below 70%, there has been a slight increase over the grade nine performance (59%). It is important to note that 39% of the eleventh graders tested may need additional critical reading strategies to assist them in identification of the author point of view.

Symbolic meaning - With a calibration of 621, students performed as expected, with 53% answering item 21 correctly. Although the percentage of students demonstrating an ability to work with symbolic meaning falls below 70%, it must be noted that symbolism or abstractions of reality may not be attainable by all. Continued experience may increase, to some degree, the percentage of students recognizing symbolism in literature.

Fact/opinion - Exceeding expected performance levels by 4%, 49% of the eleventh graders tested were able to distinguish fact from opinion. With a calibrated difficulty of 637, item 16 is testing the uppermost difficulty range of this subskill. It is not surprising that only half of the students are able to answer this item correctly. Continued opportunities to analyze a variety of written materials, both factual and opinionated, may increase the percentage of students able to reach higher levels of mastery of this skill.

Identifying theme - Although below the 70% system expectations, 48% of the eleventh graders answered item 24 correctly. Continued instructional emphasis may serve to increase the overall percentage of students able to identify the universal theme in a reading passage. It is important to keep in mind that item 24 tests the uppermost range of skill difficulty. Approximately 52% of DoDDS eleventh-graders may need additional instructional emphasis for this skill.

Identifying solutions - This important evaluative skill should be given curricular consideration. According to DoDDS scope and sequence this skill is introduced in grade 10 and is in progress for eleventh-graders. This may explain why only 46% of the students were able to answer item 6 correctly. Calibrated at 633, this represents an upper difficulty range (Figure 63) for this subskill. Approximately 54% of all eleventh graders may need additional opportunities to identify solutions within a reading passage.

Interpreting information - Item 4 represents the most difficult test item. Student performance was as expected (based on student ability) with 37% answering correctly. Although considerably less than 70% of the students tested were able to answer this item, it is important to note two factors: (1) item difficulty represents the uppermost range of this skill, and (2) opportunities to master interpretation of information may require more instructional time. Approximately 63% of all eleventh graders were not able to analyze charted information and form a conclusion or solution.

Recognizing propaganda - This skill deserves special consideration. Approximately 11% of the students who were expected to answer correctly (based on their measure on scale) did not. These findings suggest that perhaps more experiences may be needed, and that increased instructional emphasis could move at least 11% of the students toward mastery of this important evaluative comprehension skill.

TABLE 71

Grade 11 Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
02	Locating information	523	88	72	-16
01	Locating information	514	90	85	-5
15	Point of view	554	80	61	-19
05	Main idea	550	81	86	+5
09	Compare/contrast	512	90	96	+6
17	Recognizing propaganda	637	45	34	-11
13	Main idea (evaluative)	563	77	85	+8
14	Recognizing conclusions	593	65	79	+14
18	Synonyms	596	64	74	+10

Performance Discrepancies

Locating information - Although item 2 shows a 72% performance level, 16% of the eleventh graders tested were not able to answer this item correctly even though it was within their ability. Specific instructional emphasis will allow an increase in the percentage of students mastering this skill. This should be a skill every student masters, and judging from the performance levels recorded for item 1, this is not an unrealistic expectation.

Point of view - A 19% discrepancy was noted for item 15. These findings suggest that for some reason these students were not able to answer correctly even though the item difficulty was below their measured ability. Increased instructional emphasis may help these students move toward levels of mastery for this skill objective.

Main idea - DoDDS eleventh graders exceeded system expectations as well as showing a 5% positive discrepancy. This finding suggests that DoDDS reading program has provided many opportunities to work with recognition of main ideas. Even when the difficulty of the item is increased (item 13) to 563, students continue to exceed expected performance levels by 8%.

Compare/contrast - Excellent performance on this critical reading skill. With 96% of all eleventh graders answering item 9 correctly, students are exceeding system expectations. Continued experience with comparisons may make this skill accessible to all students.

Recognizing propaganda - The findings for this skill suggest that 11% of the students who have the ability to answer this item were unable to respond correctly. These findings suggest that, with some instructional emphasis, an increase in the percentage of students able to recognize propaganda in written material is possible by at least 11%.

Recognizing conclusions - Students exceeded system expectations on this skill. With 14% of the students able to demonstrate recognition of conclusions at a difficulty level above their own measured ability, this suggests that for DoDDS students this skill has been emphasized within existing reading programs.

Synonyms - Again, eleventh grade students are exceeding expected performance levels with an observed 74%. This skill shows a positive discrepancy of 10%. These findings suggest that, systemwide, reading programs seem to emphasize synonyms as a vocabulary skill.

Grade 11 Performance Summary

The findings summarized in this report are based on the test results of 4,945 eleventh graders.

When compared to the mean calibration sample, DoDDS eleventh grade students exceeded the grade eleven mean (604) by a respectable margin (626).

Findings support the notion that the range of pupil achievement increases progressively through the grades. It was not surprising then to note that grade eleven students showed the widest range in performance of all grade levels tested. Proportionately, grade 11 has a larger percentage of children in the lower ability bracket of performance.

Overall performance was good, with 74% of the students answering 70% of the items correctly. With 97% of the students having a high Measurement Quality Index (between 90 and 100) it is reasonable to assume that the objectives tested were appropriate for the grade level and that results represent a valid measure of student performance.

Items ranging in difficulty from 590 to 654 showed performance percentages below 70%. This is not surprising, as items falling into this category require students to use inferential and interpretive skills.

Significant negative performance discrepancies were noted for locating information, point of view, and recognizing propaganda (Table 71). In each of these skills, students having the ability to answer an item at this difficulty level failed to do so, therefore the expected performance deviated by more than 5% on these skills.

Curricular Implications and Recommendations

Approximately 74% of all eleventh-graders tested responded correctly to 70% of the items on the basic skills reading test. With a mean score of 626, eleventh-graders did as well as last year's students. Approximately 97% of the students had a quality of measure index (QMI) of 90-100, indicating that the test represents a fairly valid measure of eleventh grade student performance.

Analysis of the findings suggest that objectives tested were appropriate for achievement information (as opposed to minimal competence standards), and were useful in identifying trends reflective of program strengths and weaknesses.

Program strengths are implied by the high percentage of student performance on items designed to test specific skills. Findings revealed that 16 skill areas show performance percentages ranging from 72-96% (Table 69).

Skill areas reflecting particularly high performance percentages include:

compare/contrast
literal meaning
main idea (interpretive and evaluative)
recognizing conclusions
synonyms

Less than 70% of all eleventh graders were able to answer items measuring the following skills:

cause/effect
point of view
symbolic meaning
fact/opinion
identifying theme
identifying solutions
interpreting information
recognizing propaganda

However, skills with group performance percentages below 70% ranged in difficulty from 590-654. The skills tested required the student to deal with abstractions, central themes, point of view, opinion, solutions, interpretations, and recognition of bias. Because these skills required analysis and synthesis of information, it is reasonable to assume that not all students may reach optimal levels of cognitive development by the end of eleventh grade. A growing body of research suggests that many students may never reach a level of "formal operational" thinking as defined by Piaget, but learn to function quite effectively at "concrete" levels of thinking.

Therefore, a performance criterion of 70% may not represent reasonable expectations for most of the above mentioned skill areas. With more difficult items perhaps where expected and observed percent correct match it would be reasonable to assume a lower criterion as an acceptable standard.

Significantly discrepant performances were noted in items testing a student's ability to (1) locate information, (2) identify point of view, and (3) recognize propaganda. In each case, student ability exceeded item difficulty, suggesting that skills tested could improve with additional instructional emphasis.

Recommendations and Related Teaching Strategies

Items 1 and 2 are study location skills testing knowledge of Table of Contents, and use of the index. A seminar in research skills could be part of 9th or 10th grade English classes, as both ninth- and eleventh-graders seem to need review of all study skills.

Introduced in grade 6, these skills tend to be forgotten if not used. If students are being tested on these skills as exit skills, then opportunities to review and practice them should be provided prior to testing.

Further recommendations would include extended experience in identifying point of view and recognizing propaganda. Both skills require convergent inferences. These inferences are based primarily on data or information provided by the author and the logic and imagination of the student. Tasks requiring this ability will produce inferences which students and teacher agree upon and which ultimately can be confirmed by the information provided by the author.

Tasks devoted to stimulating convergent inferences can help students to better analyze and synthesize information, particularly if they are required to provide rationales for their conjectures. Stauffer's (1975)* group-directed-reading-thinking-activity, as a model for developing convergent inference skills, could be very useful for high school literature teachers. Under this model, students actively predict, read, and prove while the teacher acts as facilitator.

Over the years, Stauffer has argued that such an approach is superior to the usual basal series' approach used at the upper and middle elementary levels. With a basal approach, the teacher sets the purpose and students read to achieve the purposes set for them. Stauffer's approach involves students in actively setting their own purposes and achieving them. This approach models the behavior students should attain for independent reading of all types of reading materials later in life.

Figure 63 represents regional means in relation to DoDDS system mean and the calibration sample mean for grade 11. Regional coordinators may wish to apply a similar criterion for analysis, comparing regional findings with those discussed previously in this report.

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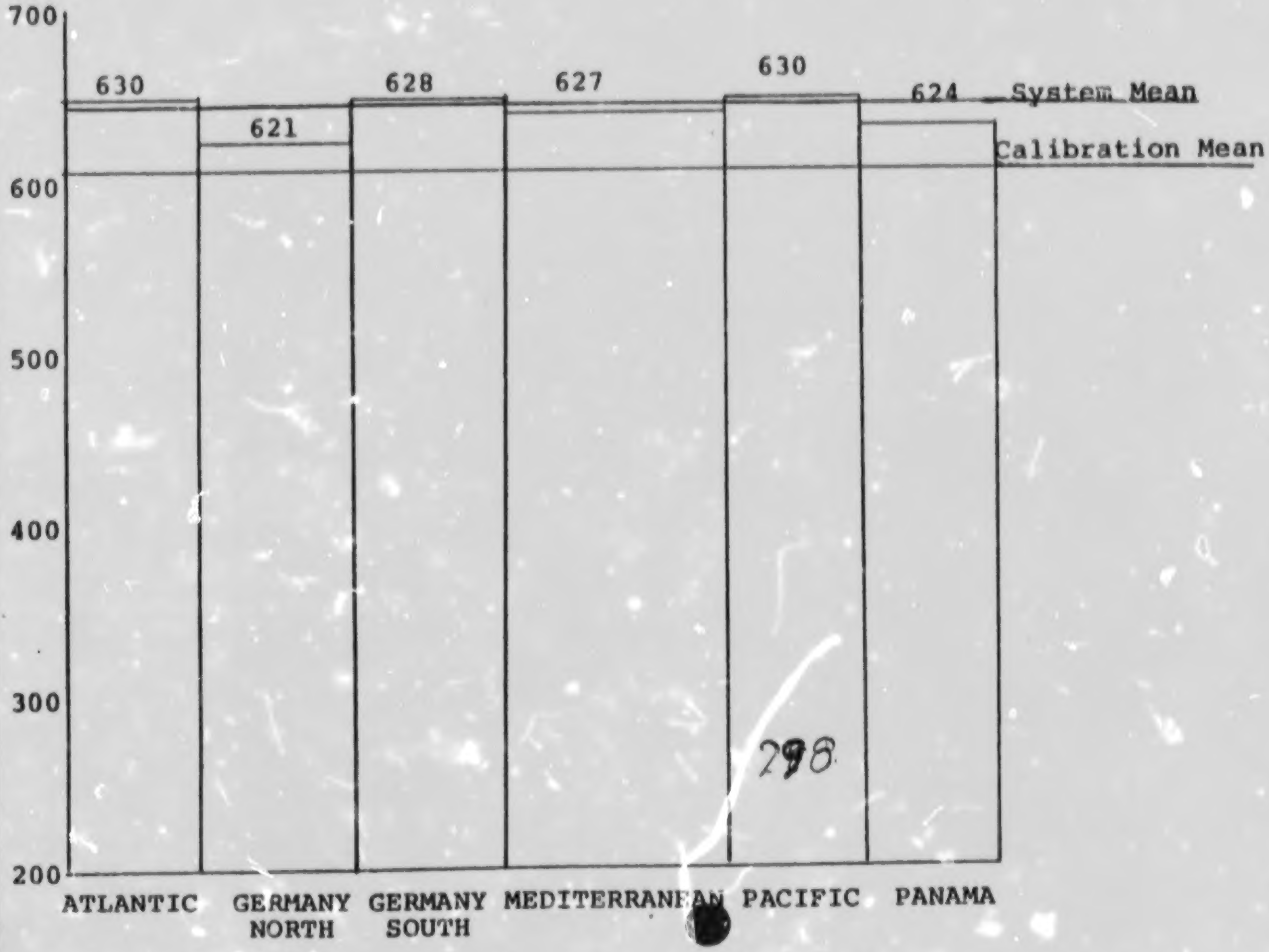
*Stauffer, Russel G. (1975). Directing the Reading-Thinking Process. New York: Harper & Row, pp. 31-72.

FIGURE 68

READING, GRADE 11 REGIONAL MEANS



Summary

Approximately 46,348 students representing grades 3,4,6,9, and 11 participated in the basic skills assessment program during the school year 1979-80.

Eight broad categories or domains were identified by DoDDS scope and sequence as necessary to the overall development of effective reading skills. Stated as goals, the categories of reading skills are as follows:

I.	Phonetic Analysis
II.	Sight Vocabulary
III.	Structural Analysis
IV.	Comprehends Factual Information
V.	Comprehends Critically Material Read
VI.	Use of Visual Reference Materials
VII.	Organization of Materials for Effective Study
VIII.	Appreciation of Literature in many Genres

Subskills selected from each of the program goals, along with the test items measuring these subskills, define reading performance relative to DoDDS scope and sequence.

Appropriate items were selected to measure the designated DoDDS objectives for each grade level. Findings reveal that the average number of students at the five grade levels (3,4,6,9,11) passing 70% or more of the items on the test was 74%.

The performance of the students relative to each of the major goals is summarized below:

Goal I: Phonetic Analysis

The performance of the DoDDS third and fourth graders demonstrated competence in use of sound/symbol relationships. Recognition of initial consonants and digraphs also exemplified primary reading program strengths. The percentage of successful student performance ranged from 72-95% on items requiring phonetic analysis skills.

Students performed as expected (based on student ability) on each item measuring this goal.

Goal II: Sight Vocabulary

Four basic skills were selected to measure achievement levels among DoDDS students in acquiring a basic sight vocabulary. Skills assessed included: (1) word meaning in context, (2) recognition of basic sight words, (3) use of synonyms, and (4) antonyms.

Performance on items assessing word meaning in context sampled achievement levels at grades 3,4,6, and 11. Successful performance percentages ranged from 82-94% across grade levels on items measuring this important reading skill.

The excellent performance on items measuring contextual word meaning may be attributed to program strengths evidenced by the assessment data on items measuring recognition of basic sight words.

The success of the primary program may very well rest on these two foundation skills. Acquisition of a comprehensive sight vocabulary and application of contextual clues to unlock the meaning of new words can be powerful tools for the beginning reader and represent very definite program strengths.

Items assessing use of synonyms and antonyms represent higher levels of word meaning analyses, or vocabulary skills. At grade 9, item 4 measuring knowledge of the antonym for the word thick, required the student to know the definition of the word "antonym" before the correct response could be selected. This definition might have been more easily recalled by a seventh grader due to proximity of instruction, as the skill is introduced at that grade level according to the DoDDS scope and sequence. Because ninth grade performance data revealed an 11% discrepancy between the expected percentage correct and the observed, a recommendation is in order. Knowledge of vowel sounds long, short and variant was assessed exclusively at the primary level.

Knowledge of synonyms, assessed at grades 9 and 11, showed an increase of 12%. At grade 9, 62% of the students answered item 5 correctly, exceeding an expected percentage (59% by 3%). Eleventh graders exceeded expected performance levels by 10% (74%) to demonstrate competence in this vocabulary skill.

Goal III: Structural Analysis

Reading program strengths are reflected in high performance on items measuring knowledge of (1) vowel sounds, (2) contractions, (3) word affixes, (4) multiple word forms such as compound words, (5) irregular verb forms, and (6) inflected word endings.

Performance percentages of 72-90% were presented on almost all structural analysis skills across grade levels tested. Performance exceptions were noted among fourth graders on items assessing knowledge of vowel digraphs and diphthongs. Both skills, however did show performance percentages above 50% and were considered skills in progress (presently receiving instruction).

Other structural analysis skills that represent strengths for a majority (70% and above) of DoDDS students include contractions and word forms. Grades 4 and 6 show high levels of competence on items assessing these skills.

Knowledge of prefixes, suffixes, inflected endings and irregular verb forms show high percentages of (72-98%) performance across grade 4 through 9.

Phonetic analysis of vowel sounds was very strong for the majority of third graders. All show high performance percentages (72-94%) for grades 3 through 9.

Items assessing singular possessives showed confusion over proper use of the apostrophe.

Unusual plural endings, as in the case of item 1 on the ninth grade test, represent an extremely difficult level of this skill. Although only 27% of the ninth grade students were able to function at the upper most limit of this skill (665), the skill shows an increasing number of students reaching progressively higher levels of competence across grades 3 through 6.

Goal IV: Comprehends Factual Information

Comprehension of the literal main idea of a reading passage is assessed at grades 3 and 11. Performance strengths increase from 88% at the primary level to 95% by grade 11.

Sequencing of events is another factual comprehension skill assessed at grades 3,4, and 6. Performance percentages remained farily constant across grade levels as the item difficulty level was increased. This skill has ongoing difficulty levels well above 600 and should continue to receive instructional emphasis. Elementary teachers must be giving this skill some attention already as evidenced by 4% of the sixth grade students exceeding their expected performance level on an item measuring sequencing.

The recalling of factual information was assessed only at grade 4. A performance percentage of 91% was reported for this skill.

Goal V: Comprehends Critically Material Read

Identification of an inferred main idea is definitely a strong skill among DoDDS students. Tested at grades 3,4,6,9 and 11, performance percentages were consistently above 70% despite increasing item difficulty. At the eleventh grade, students exceeded expected percent correct on both inferential and evaluative main idea items.

DoDDS student performance across grade levels is consistently strong (above 70%) in recognition of subordinate details in a reading passage. Attention to detail coupled with a firm understanding of the main idea of a passage allows students to move successfully to interpreting information. The majority of DoDDS ninth graders (71%) responded correctly to items measuring these skills.

Items measuring skill in identifying causal relationships show excellent performance levels (78% and 90% respectively) for grades 3 and 4. Seventy-seven percent of the sixth graders tested could answer a cause/effect item with a difficulty value of 524 but the percentage dropped considerably on items over 600. However, by grade 9 over half (61%) of the students can respond to difficult cause/effect items (615), with 11% of the students exceeding expected performance levels. Performance percentages were comparable for eleventh grade on this skill. Once the skill is attained, the majority of students are able to answer causal items of increasing difficulty.

By ninth grade the majority of students (71%) are able to interpret information. The item measuring this skill at grade 11 reached the upper limits (654) of difficulty. Performance percentages were lower, however, students performed as expected based on their ability.

Items measuring knowledge of analogies. similes and metaphors presented some difficulties for sixth graders. However, this skill is in progress and shows improvement at grades 9 and 11.

Identification of false generalities was only tested at grade 6. Approximately 50% of the students could correctly answer an item with a difficulty of 590. Because this skill was not tested in subsequent grade levels, it is difficult to analyze progress. However, performance on related skills such as identifying propaganda and bias present a problem for most ninth and eleventh graders. Eleven percent of DoDDS high school juniors have the ability to answer an item with a difficulty of 637, but could not respond correctly to an item of similar difficulty requiring identification of propaganda.

Items assessing student ability in distinguishing facts and opinions were on tests at grades 3,4, and 11. The majority of third graders were able to distinguish fact from fantasy. The natural progression of the skill moves the student to distinguishing facts from opinions. An understanding of the definition of the term "opinion" is a prerequisite to the skill. Although a discrepant performance among 13% of the fourth graders warrants consideration, almost 50% of the eleventh graders can demonstrate competence at the upper limits of this skill (637).

Goal VI: Use of Visual Reference Materials

Items measuring use of (1) card catalog, (2) index, (3) glossary, and (4) table of contents all show high percentages of student performance (above 70%).

Locating and interpreting information from graphs and charts and other sources of information show high performance percentages for grades 6,9, and 11. More opportunities for analyzing charts and graphs of increasing complexity would be useful for most eleventh graders, as 11% of these students have the potential but did not demonstrate the skill when tested at the upper limits of this objective.

Goal VII: Organization of Materials for Effective Study

This goal includes a number of objectives that were not directly measureable by means of pencil and paper exercises. Skimming, scanning, use of SQ3R to study in content fields, notetaking reading rate and self-analysis of reading skills were some of the objectives listed in the DoDDS scope and sequence of reading skills.

Measureable objectives included (1) following a set of directions, (2) classifying information on a topic, (3) arranging facts in order of importance, and (4) recognizing main and important ideas.

With the exception of grade 4, DoDDS students exceeded system expectations (70-88%) on all items measuring ability to follow a set of written directions. Due to the high difficulty (545) of the fourth grade item measuring this skill, a 53% performance level should not be considered a negative finding. Fourth graders performed as expected, based on their ability on this skill. Overall student performance indicates that DoDDS students are able to follow 1 and 2-step written directions and that the number of students demonstrating competency increases across grade levels. These findings are no doubt related directly to the excellent performance found among the majority of DoDDS students in comprehension of factual information.

Classifying information as to topic was measured by the student's ability to demonstrate use of an index or table of contents. Results were reported under Goal VI in this report.

Items requiring students to work with supporting details and sequencing, assessed their ability to arrange facts in order of importance. These skills are also closely related to the students' ability to recognize the main or important ideas; and to distinguish among ideas in order to form a hierarchy.

Performance on items measuring these skills suggests strengths as performance percentages ranged from 69 to 94%.

Goal VIII: Appreciation of Literature in many Genres

This goal measured student skills in identifying (1) components of a plot and universal theme, (2) characterization and motives, (3) comparisons, and (4) use of figurative language in determining mood, tone and point of view.

Sixty-six percent of the ninth graders were able to identify the components of a plot even though the calibrated difficulty of the item measuring this skill was 599. Instructional emphasis on this skill was inferred from the findings that 87% of the students found this skill within their ability even though the item difficulty exceeded that ability level.

By eleventh grade, 86% of DoDDS students could identify the universal theme excerpted from a literary passage. Approximately 48% of these students can correctly respond to items measuring the upper limits (631) of this skill.

Identification of appropriate character motivation and characteristics also reflect program stengths at the ninth and eleventh grade level. Over half of the ninth graders tested correctly responded to an item assessing the extreme upper range (640) of this skill. Further, 13% of these students found this item within their ability even though the difficulty level exceeded their measure on scale.

Comparison skills are assessed at grades 6,9, and 11. The percentage of students correctly responding to items measuring ability to compare and contrast information increased across grade levels ranging from 76 to 96% respectively.

Use of figurative language and point of view represent two inherently more difficult skill areas for most students. Figurative language is more difficult to read and generally requires the reader to work with abstract concepts and symbolism. However, for DoDDS students performance percentages do show an increase from grades 6 through 11. Performance percentages range from 62-89%.

Identification of mood and tone within a reading passage requires interpretive skills, and by ninth grade, 67% of the students are able to respond correctly to items measuring this skill.

Use of imagery and identification of a point-of-view seem to be skill areas that fewer students can manage when tested at the upper limits of skill difficulty. Eighty percent of all sixth graders tested were able to identify the author's point of view with an item difficulty of 496. However, the overall performance percentages were considerably lower among ninth and eleventh graders when the difficulty level of the item was raised to 554. A negative performance discrepancy appeared at both ninth and eleventh grades (17% and 19% respectively). Students who have the ability to answer an item at this difficulty are not responding correctly to items assessing this skill. Additional instructional emphasis could increase performance percentages considerably.

General recommendations for reading programs are listed below:

1. Capitalize on program strengths in phonetic analysis, basic sight vocabulary and structural analysis.

2. Continued instruction is recommended for digraphs and diphthongs for grades 4 and 5.

3. Continue emphasis on use of possessives for ninth graders with particular attention to use of the apostrophe.

4. A review of unusual plural endings may be helpful for most ninth graders.

5. Continue to provide a variety of experiences for sequencing events or details at varying levels of difficulty for all grade levels.

6. Increase opportunities for junior high students to work with analogies, similes and metaphors.

7. Additional instructional emphasis is recommended for high school students in identification of bias, opinionated materials and propaganda techniques.

8. Attention to definition of terms when teaching critical analysis reading skills is desirable.

9. Skills for organizing material for effective study reflect program strengths and teachers should be encouraged to continue their efforts in this area.

10. Continue emphasizing analytic skills to identify characterizations, motives and comparisons.

11. Provide additional opportunities to work with figurative language, mood/tone and point-of-view as these are inherently more difficult skills for all students.

Basic Skills Assessment Results for Language Arts

Introduction

During the school year 1979-80, DoDDS expanded the Basic Skills Assessment Program to test language arts skills at grades 3, 4, 6, 9, and 11. Only grades 9 and 11 had been tested in 1978-79. The language arts skills of 46,030 students were analyzed by the methods described in the preceding section of this report.

Eight broad categories or domains of language arts skills were identified by DoDDS scope and sequence as necessary to the overall development of effective language arts skills. These categories or goals served as a framework for test construction. Program goals for language arts development are listed below:

The student demonstrates:

.use of appropriate punctuation
.use of appropriate capitalization
.proper usage of language
.use of proper sentence structure
.competence in building and changing sentences
.competence in paragraph development
.use of proper format for correspondence
.competence in spelling

Subskills selected from each of the program goals define language arts performance relative to DoDDS instructional scope and sequence. Specific measureable skill objectives are listed for each grade level.

Figure 69 represents the range of difficulty on the Rasch continuum of selected DoDDS system skills which were measured in spring, 1980.

Table 72 represents mean scores across grade levels which were tested.

Table 73 represents cut scores and percentages of students correctly answering 70% of the test items.

Table 74 represents mean measurement quality index by grade level.

FIGURE 69

LANGUAGE ARTS SKILLS CONTINUUM

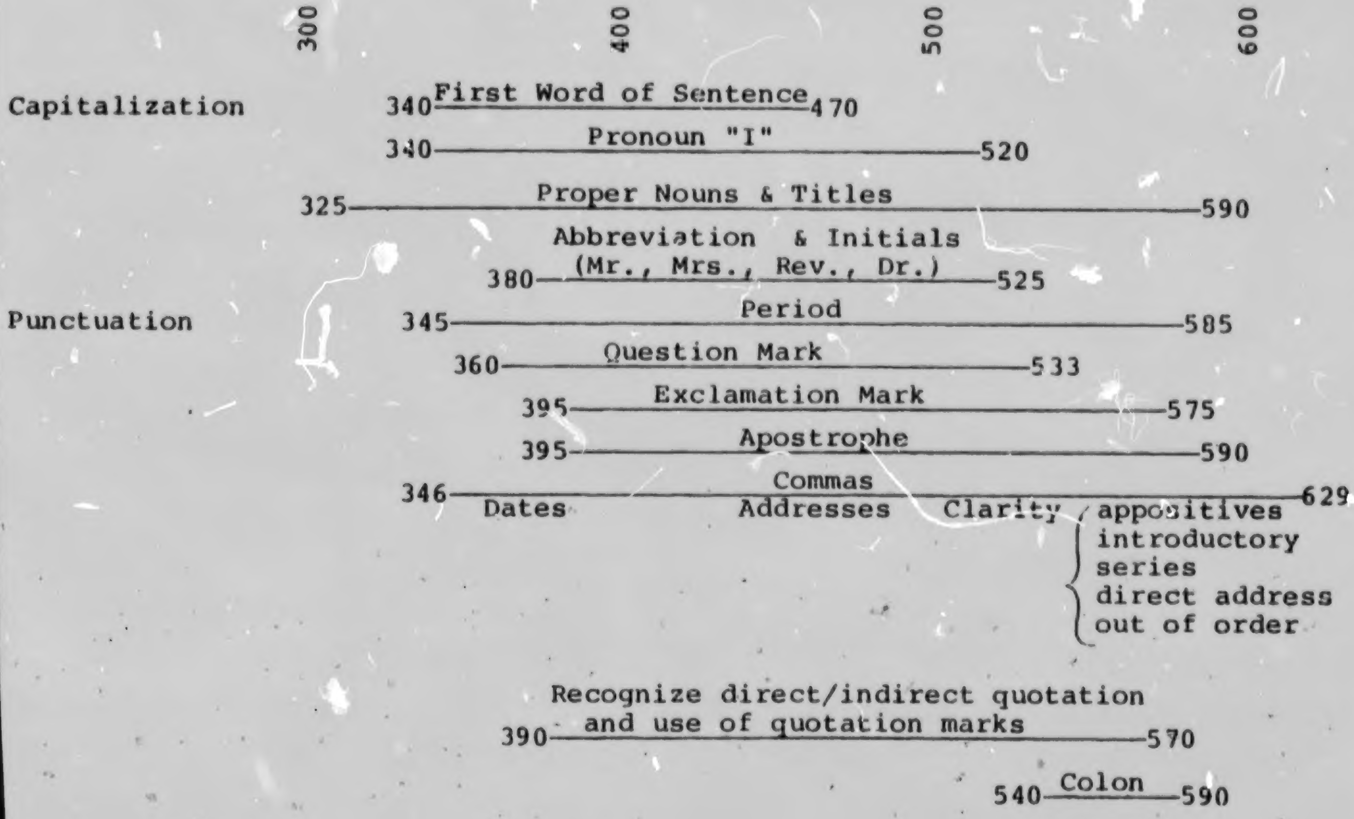


FIGURE 69 (cont'd.)

LANGUAGE ARTS SKILLS CONTINUUM

300 400 500 600

Usage

350—Subject-Verb Agreement—578

340—Verb Tense—590

420—Negatives—530

444—Pronoun Choice—521

358—Adjective-Adverb Construction—570

340—Use of Case—635

355—Identify Subject/Predicate—620

Sentence Structure

400—Complete Sentence, Fragment & Run-on—636

Building & Changing Sentences

405—Compounding—600

420—Coordination & Subordination—630

520—Inverted Word Order—600

Paragraph Development

460—Topic Sentence—595

410—Subordinate Detail—613

460—Main Idea—579

493—Closing Statement—630

490—Patterns of Development—630
example-detail-reason-comparison

FIGURE 69 (cont'd.)

LANGUAGE ARTS SKILLS CONTINUUM

300 400 500 600

349 Final-Medial-Initial Vowel Sounds 542

300 Uncommon Vowel Units-Vowel Digraphs 510

Spelling

318 Consonant Markers - Doubling - Spelling Units 590

358 Stress - Including Schwa and frequently mispronounced 561

371 Prefixes & Suffixes 571

TABLE 72

Mean Scores Across Grade Levels for Language Arts

Grade Level	3	4	6	9	11
Mean Score	486	512	556	579	596
Number of Students	13,190	11,885	9,159	6,918	4,878

TABLE 73

Cut Scores and Percentages of Students Correctly Answering 70% of the Language Arts Items

Grade	3	4	6	9	11
Cut Score	454	507	534	570	579
Percent correctly answering 70% of the items	75%	61%	73%	63%	72%

TABLE 74

Percentage of Students in Selected Quality of Measure Index for Basic Skills Language Arts Test

LANGUAGE ARTS

Grade	3	4	6	9	11
Mean QMI	94	95	97	89	95
Range	59-100	60-100	49-100	44-100	59-100
QMI Value					
90-100	86.71	91.06	95.45	89.47	89.68
79-89	12.30	5.03	4.45	7.60	9.84
68-78	.91	1.02	.06	2.86	.40
44-67	.08	.07	.02	.07	0.0

DoDDS Language Arts Objectives: Third Grade

The pupil should be able to:

- capitalize abbreviations in titles and addresses
- capitalize the first word of a sentence
- capitalize pronoun "I"
- capitalize proper nouns
- capitalize initials
- capitalize months
- capitalize days of the week
- use correct end punctuation
- use commas in dates
- use comma between city and state
- use correct verb tenses
- have subject and verb agree
- use pronouns correctly
- recognize subject and predicate
- recognize complete sentences
- spell the schwa sound
- spell uncommon vowel units
- spell with short medial vowels
- spell consonant sounds
- spell vowel digraphs
- spell suffixes that form agentive nouns

Performance on Objectives

As shown in Table 73, for grade 3, a Rasch score of 454 is equivalent to correctly answering 70% of the items. Approximately 75% of the third graders tested correctly answered 70% of the items. Performance was excellent and findings suggest that test objectives were attainable by the majority of pupils, and, therefore, may be representative of minimal competence skills for DoDDS third graders as well as achievement levels.

TABLE 75

Grade 3 Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
02	Capitalization-months	338	92	93	+1
01	Capitalization-sentence beginning	342	92	92	+0
17	Pronoun choice	341	92	92	+0
25	Complete sentence	355	90	90	+0
14	Verb tense	361	89	89	+0
07	End punctuation-period	361	89	89	+0
30	Spelling-short vowel digraph	366	88	88	+0
09	End punctuation-question mark	376	86	87	+1
27	Spelling-short medial vowel	379	86	86	+0
31	Spelling-uncommon vowel unit	354	90	86	-4
32	Spelling-consonant doubling	357	90	86	-4
29	Spelling-agentive n. suffix	387	84	84	+0
06	Capitalization-day of week	396	82	82	+0
13	Capitalization-abbreviation	399	81	81	+0
18	Pronoun choice	400	81	81	+0
08	End punctuation-question mark	416	76	77	+1
05	Capitalization-initials	452	64	76	+12
24	Complete sentence	420	76	76	+1
23	Complete sentence	422	74	74	+0
10	End punctuation-exclamation mark	436	70	70	+0

Discussion

Performance at or above a 70% observed correct level on the table items indicates a strong instructional program. Only one item has a significant discrepancy, which is at a +12: Item 05, Capitalization-initials (discussed after Table 77).

TABLE 76

Grade 3 Test Items with Group Performance Below the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
20	Complete sentence	439	69	65	-3
16	Subject-verb agreement	445	67	65	-2
21	Complete sentence	460	61	62	+1
22	Complete sentence	474	56	56	+0
11	Comma-dates	471	57	54	-3
15	Verb tense	515	39	51	+12
04	Capitalization-proper nouns	500	45	44	-1
12	Comma-city and state	507	42	38	-4
19	Subject and predicate	550	26	26	+0

Recognize a Complete Sentence is a skill stressed from grades 2 through 4 of DoDDS scope and sequence (listed as "discriminates between a phrase and a complete sentence"). Five items (Items 20, 21, 22, 23 and 24) were used to test this skill at grade 3, with an item difficulty range from 420 to 474. By averaging performance on the five items, an overall observed percent correct performance of 66% is found.

Subject-verb Agreement is a skill stressed from grades 3 through 6 (DoDDS scope and sequence). Findings indicate a satisfactory progress toward mastery: 65% of grade 3 pupils answered the item correctly.

Comma-dates and Comma-city and state represent skills of writing mechanics stressed from grades 2 through 6 (DoDDS scope and sequence). Group-performance levels on these items indicate a positive growth toward skill mastery.

Verb Tense-skill Item - (Item 15) shows an observed group performance higher than expected (+12). Item requires pupil to select "had thrown" as the correct verb form without using past participle terminology.

Capitalization-proper nouns - Item requires pupil to identify seven proper nouns in one sentence. The grade 3 mean of 486 establishes that 45% of third graders should answer the item correctly; in actuality, 44% of grade 3 pupils answered correctly.

Subject and predicate - Item findings show a satisfactory entry-skill level in identifying sentence parts for grade 3 pupils. DoDDS scope and sequence introduces the skill at grade 3 and continues emphasis through grade 12.

TABLE 77

Grade 3 Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
05	Capitalization-initials	452	64	76	+12
15	Subject-verb agreement	515	39	51	+12

Items discussed below show a deviation or discrepancy between the expected and observed percent correct at or above the 5% level.

Capitalization-initials - Based on grade 3 mean of 486 it was expected that 64% of third graders would answer this item correctly; in actuality, 76% answered correctly. Item requires pupil to distinguish one correct form among three incorrect ways of presentation. Findings show pupils are strong in subskill of capitalizing proper name initials for age/ability level.

Subject-verb agreement - Based on grade 3 mean of 486, it was expected that 39% of third graders would answer this item correctly; in actuality, 51% answered correctly. Item requires pupil to select proper verb form without grammatical terminology. Findings show higher than expected performance for age/ability level.

Grade 3 Performance Summary

The findings reported in this section of the Technical Report are based on spring, 1980 test results obtained from 13,190 grade 3 pupils. Overall performance for DoDDS third graders was satisfactory. Twenty-two items correct out of thirty-two items represents a 70% performance level; 75% of the third graders met this level of performance.

An exceptionally high percentage of pupils performing successfully was noted in items dealing with Capitalization-months, Capitalization-sentence beginning, Pronoun choice, and Complete sentence.

Pupils performed at or above expectation in items dealing with Verb tense, End punctuation-period, End punctuation-question mark, End punctuation-exclamation mark, Spelling-short vowel digraph, Spelling-short medial vowel, Spelling-agentive noun suffix, Capitalization-day of week, Capitalization-abbreviation, Capitalization-initials, Pronoun choice, Complete sentence.

There are no objectives that had items in which group performance was significantly below expectation.

Spelling-uncommon vowel units - Performance on this spelling skill was slightly below expectation for the group-performance mean.

Pupils will benefit from a phonic study of words in groups, e.g.:

glue - knew
argue - grew
true - few
blue - blew

Spelling-doubling consonant units - Performance on this spelling skill was slightly below expectation for the group-performance mean.

Pupils require repeated phonic experiences in dealing with this skill. For example:

aple - apple

"Which spelling would sound like the fruit and which would sound like 'a pill'?"

Other words to include in this skill grouping include:

funny
fuzzy
fellow
pillow
puffy
running
getting
betting
smaller
taller
better
letter

Even where group-performance levels were below 70%, the indication is that the subskill areas have been introduced and that with further instructional/learning experiences, the group-performance levels will rise.

Figure 70 represents regional means in relation to DoDDS system and calibration sample means. Regional coordinators may wish to apply a similar criterion for analysis, comparing regional findings with those discussed previously in this report.

Grade 3 Curricular Implications and Recommendations

Grade 3 overall performance on the basic skills language arts test was satisfactory. Approximately 75% of the pupils responded correctly to 70% of the test items. Test results confirm that all objectives selected were appropriate for this grade level.

Continued instructional emphasis is recommended for the following sub-skills which were tested:

- Recognize complete sentence
- Subject-verb agreement
- Comma-dates
- Verb tense
- Capitalization-proper nouns
- Comma-city and state
- Subject and predicate

Fewer than 70% of all third graders were able to answer these items correctly. However, these items range in difficulty from 439 to 550. With a grade level mean of 486, it is reasonable to assume that additional emphasis could increase the percentage of pupils mastering these skills.

Specific skills for consideration include:

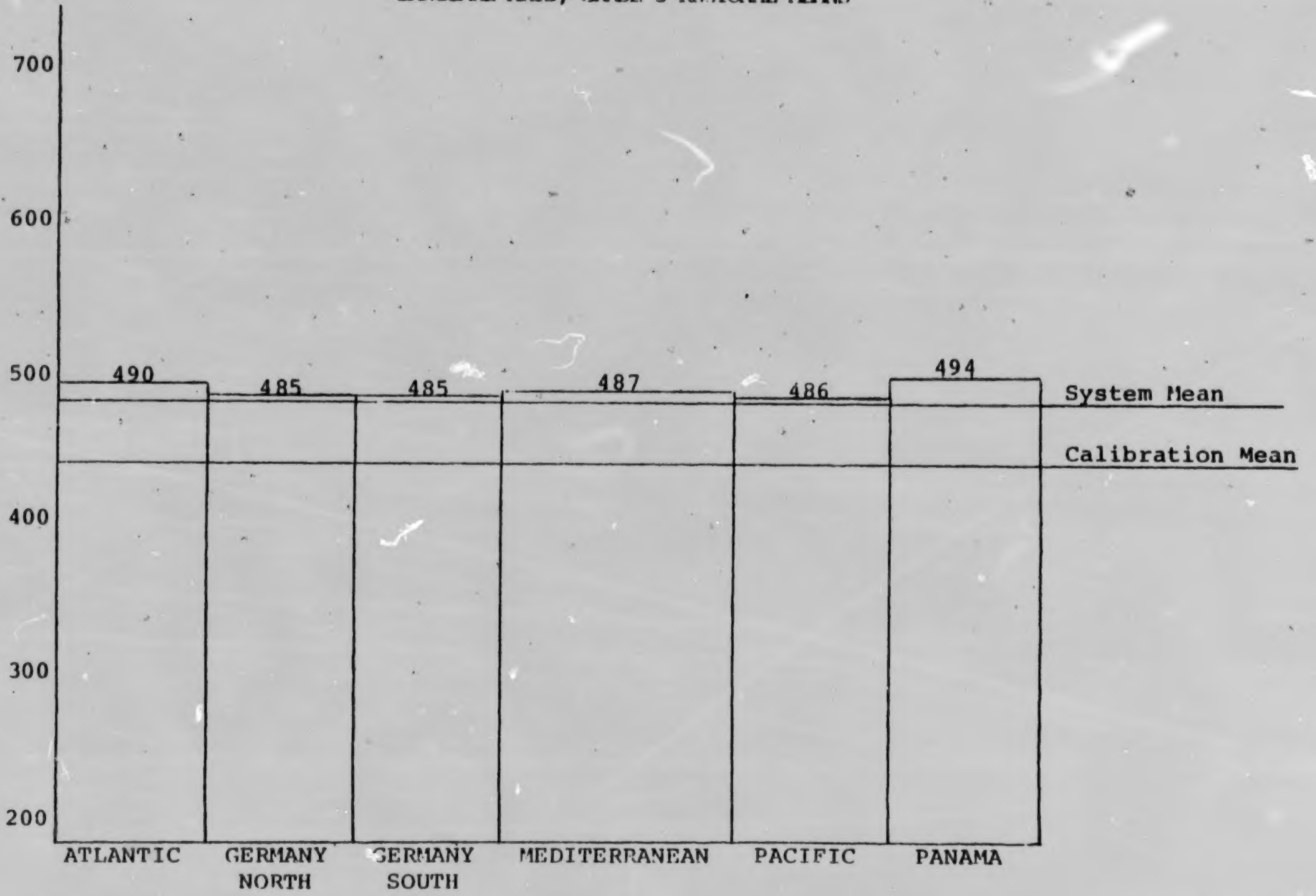
Capitalization of proper nouns - Understanding this subskill, which includes proper names, geographical locations, holidays, deities, etc., requires experience and judgment from the pupil. For example, a third grade pupil may know the rule for capitalizing proper names but not recognize "Yvonne" as a proper name. The skill of capitalizing proper nouns must be reviewed and reinforced well beyond elementary school levels.

Punctuation-use of commas - Pupils need continued practice in applying the conventions of the comma in dates and addresses. More advanced uses of the comma, as in setting off interrupters or for sentence clarity, should be dealt with, of course; however, repetition as well as broad experience in generating original sentences to illustrate the correct uses of the comma will be necessary to ensure high levels of mastery.

Identification-complete sentences - Young pupils tend to identify sentences by the first word capitalization and end punctuation markers. Various exercises in generating original and complete sentences must be provided. The "logic" of the subject and predicate as well as the terminology should be strongly reinforced at this and succeeding grade levels to raise the performance on the objective.

FIGURE 70

LANGUAGE ARTS, GRADE 3 REGIONAL MEANS



Language Arts Findings, Curricular Implications and Recommendations

DoDDS Language Arts Objectives: Fourth Grade

The student should be able to:

- capitalize pronoun "I"
- capitalize names of cities
- capitalize names of states
- capitalize names of special places
- capitalize the beginnings of lines of poems
- use commas between city and state
- use the apostrophe in singular possessives
- use the apostrophe in contractions
- use correct verb tenses
- have subject and verb agree
- avoid double negatives
- use pronouns correctly
- use adjectives and adverbs correctly
- recognize subject and predicate
- recognize incomplete sentences
- combine simple sentences
- use correct form to address an envelope
- spell vowel digraphs
- spell with short medial vowels

Performance on Objectives

As shown in Table 73, for grade 4, Rasch score of 507 is equivalent to correctly answering 70% of the items. Approximately 61% of the fourth graders tested correctly answered 70% of the items. Findings suggest that test objectives were attainable by the majority of pupils, and that the fourth grade test contains appropriate objectives to measure achievement as well as minimal competence skills.

TABLE 78

Grade 4 Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
12	Verb tense	368	94	94	+0
16	Avoid double negative	420	84	92	+8
10	Verb tense	387	91	91	+0
11	Verb tense	389	90	91	+1
07	Apostrophe-contraction	390	90	91	+1
28	Spelling-vowel digraph	360	94	91	-3
27	Spelling-vowel digraph	385	91	90	-1
30	Spelling-short medial vowel	390	90	90	+0
31	Spelling-vowel digraph	371	93	90	-3
32	Spelling-short medial vowel	403	88	90	+2
17	Pronoun choice	406	87	88	+1
06	Apostrophe-contraction	409	87	87	+0
29	Spelling-short medial vowel	422	84	83	-1
03	Capitalization-pronoun "I"	429	82	82	+0
26	Combine simple sentences	444	77	77	+0
08	Apostrophe-sing. poss.	483	63	75	+12
13	Subject-verb agreement	461	71	72	+1
24	Address envelope form	464	70	71	+1
25	Combine simple sentences	438	79	71	-8

Discussion

Performance at or above a 70% observed group performance on the above items indicates a strong instructional program. Only one item has a significant negative discrepancy: Item 25, Combine simple sentences (Table 78). On the other hand, two items have significant positive discrepancies: Item 16, Avoid double negatives; and Item 08, Apostrophe-singular possession (Table 78).

TABLE 79

Grade 4 Language Arts Test Items with Group Performance Below the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
22	Recognize incomplete sentence	462	71	69	-2
21	Complete sentence	460	72	68	-4
20	Recognize incomplete sentence	459	72	65	-7
01	Capitalization-various	483	63	63	+0
23	Recognize incomplete sentence	493	59	58	-1
14	Subject-verb agreement	514	49	58	+9
18	Adjective-comparative and superlative	536	39	38	-1
15	Subject-verb agreement	571	25	32	+7
02	Capitalization-name of city	483	63	63	+0
05	Comma-address parts	556	31	31	+0
04	Comma-address parts	577	23	28	+5
19	Subject and predicate	550	33	27	-6
09	Possessive pronoun (no apostrophe)	592	19	17	-2

Discussion

Recognition of an incomplete sentence is a skill introduced in grade 4 (DoDDS scope and sequence) and represents a skill in progress. Items require recognition of incomplete sentence without grammatical terminology of subject and predicate.

Recognition of a complete sentence falls below expectation for age/ability level.

Capitalization skills covered by test items have been introduced by grade 3 (DoDDS scope and sequence) and represent skills in progress.

Subject-verb agreement is stressed beginning in grade 3 (DoDDS scope and sequence). Group performance indicates strong progress.

Appropriate use of adjective degrees is introduced at grade 4 (DoDDS scope and sequence). Item does not require use of grammatical nomenclature; rather, the pupil must distinguish when "more" is not needed or when "most" is not appropriate to compare two things. Progress is satisfactory for age/grade level.

Comma to separate parts of an address when written in sentence format is slightly more advanced than merely inserting a comma between city and state. Items require pupil to select the answer where the comma was correctly placed between the street and city as well as city and state. Represents skills in progress which are stressed from grades 2 through 6 (DoDDS scope and sequence).

Recognition of subject and predicate is introduced at grade 3 and stressed through grade 12 (DoDDS scope and sequence). Item requires pupil to know "subject" as a grammatical term.

Possessive pronouns come under two skills: Use pronouns correctly and Use apostrophe correctly (DoDDS scope and sequence - grade 3 and upward). Item requires pupil to eliminate apostrophe in possessive pronoun forms.

TABLE 80

Grade 4 Language Arts Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
08	Apostrophe-singular poss.	483	63	75	+12
14	Subject-verb agreement	514	49	58	+9
16	Avoid double negative	420	84	92	+8
15	Subject-verb agreement	571	25	32	+7
04	Comma-address parts	577	23	28	+5
19	Subject and predicate	550	33	27	-6
20	Recognize incomplete sentences	459	72	65	-7
25	Combine simple sentences	438	79	71	-8

Performance Discrepancies

The items discussed below show a deviation or discrepancy between the expected and observed percent correct at or above the 5% level.

Apostrophe-singular possessive - While only 63% of the DoDDS grade 4 pupils were expected (based on their ability) to respond correctly to Item 08, an observed 75% actually answered the item correctly.

Subject-verb agreement - Two items tested this skill. On both the moderately difficult item (49% expected to answer correctly) and the more difficult item (25% expected to answer correctly) pupils performed higher than expected (based on their ability).

Avoid double negative - Higher than expected performance on this item may be attributed to correct language use in the home and educational environment as much as to instructional emphasis on avoiding the double negative.

Comma in parts of an address - Group performance higher than expected (based on their ability). Item requires pupil to apply a more advanced skill of using a comma after the last item in an address when the address is cast mid-sentence.

Recognize subject and predicate - Performance lower than expected indicates need for increased instructional/learning experiences in identifying the subject and predicate of a sentence.

Recognize incomplete sentence - Performance lower than expected indicates need for increased instructional/learning experiences in the "logic" of the subject and predicate completeness (with and without grammatical terminology).

Combine simple sentences - Performance lower than expected indicates need for increased instructional/learning experiences in sentence manipulation.

Grade 4 Performance Summary

The findings reported in this section of the technical report are based on spring, 1980 test results obtained from 11,885 grade 4 pupils. Overall performance for DoDDS fourth graders was satisfactory. Twenty-two items correct out of thirty-two items represents a 70% performance level; 61% of the fourth graders met this level of performance (Table 73).

An exceptionally high percentage of pupils performing successfully was noted in avoiding double negatives and selecting the correct verb tense. Pupils performed at or above levels of expectation in items dealing with using the apostrophe in contraction and singular possession, spelling with the short medial vowel, correct pronoun choice, and use of the correct form for addressing an envelope.

Only three objectives had items in which group performance was significantly below expectation (greater than 5% negative deviation between expected and observed performance): recognizing incomplete sentences, recognizing subject and predicate, and combining simple sentences.

Curricular Implications and Recommendations

Grade 4 overall performance on the basic skills language arts test was satisfactory. Approximately 61% of the pupils responded correctly to 70% of the items. Test results confirm that all objectives selected were appropriate for this grade level.

Continued instructional emphasis is recommended for the following sub-skills which were tested:

- Recognize incomplete sentence
- Recognize complete sentence
- Capitalization skills
- Subject-verb agreement
- Positive, comparative and superlative degrees of adjectives
- Comma skills
- Identification of subject and predicate
- Possessive pronouns (no apostrophe)

Fewer than 70% of all fourth graders were able to answer the items correctly. However, these items range in difficulty from 460 to 592. With a grade level mean of 512, it is reasonable to assume that additional emphasis could increase the percentage of pupils mastering these skills.

With a -7% discrepancy, Item 20, recognizing an incomplete sentence, deserves specific consideration. The grade 4 weakness in correctly identifying complete/incomplete sentence forms is also a weakness at grade 3. As stated for that lower grade level, "young pupils tend to identify sentences by the first word capitalization and end punctuation markers. Various exercises in generating original and complete sentences should be continued and possibly expanded. The 'logic' of the subject and predicate as well as the terminology should be strongly reinforced at this and succeeding grade levels to raise the performance on this objective." Item 19, recognizing a subject of a sentence, has a -6% discrepancy. The skill of recognizing a subject and predicate is closely related to the identification of complete and incomplete sentences.

With a -8% discrepancy, Item 25, combining simple sentences, also deserves consideration. Causes for weakness may range from type of textbook used to type of classroom activities conducted. Most educators are convinced that pupils learn to deal with sentence manipulation most effectively by actual practice in writing. It may be effective to investigate reliance on workbook-type activities as opposed to actual writing activities. Pupils learn to write by writing.

Performance was slightly lower than expected in the spelling subskill of forming vowel digraphs. The following are words which illustrate:

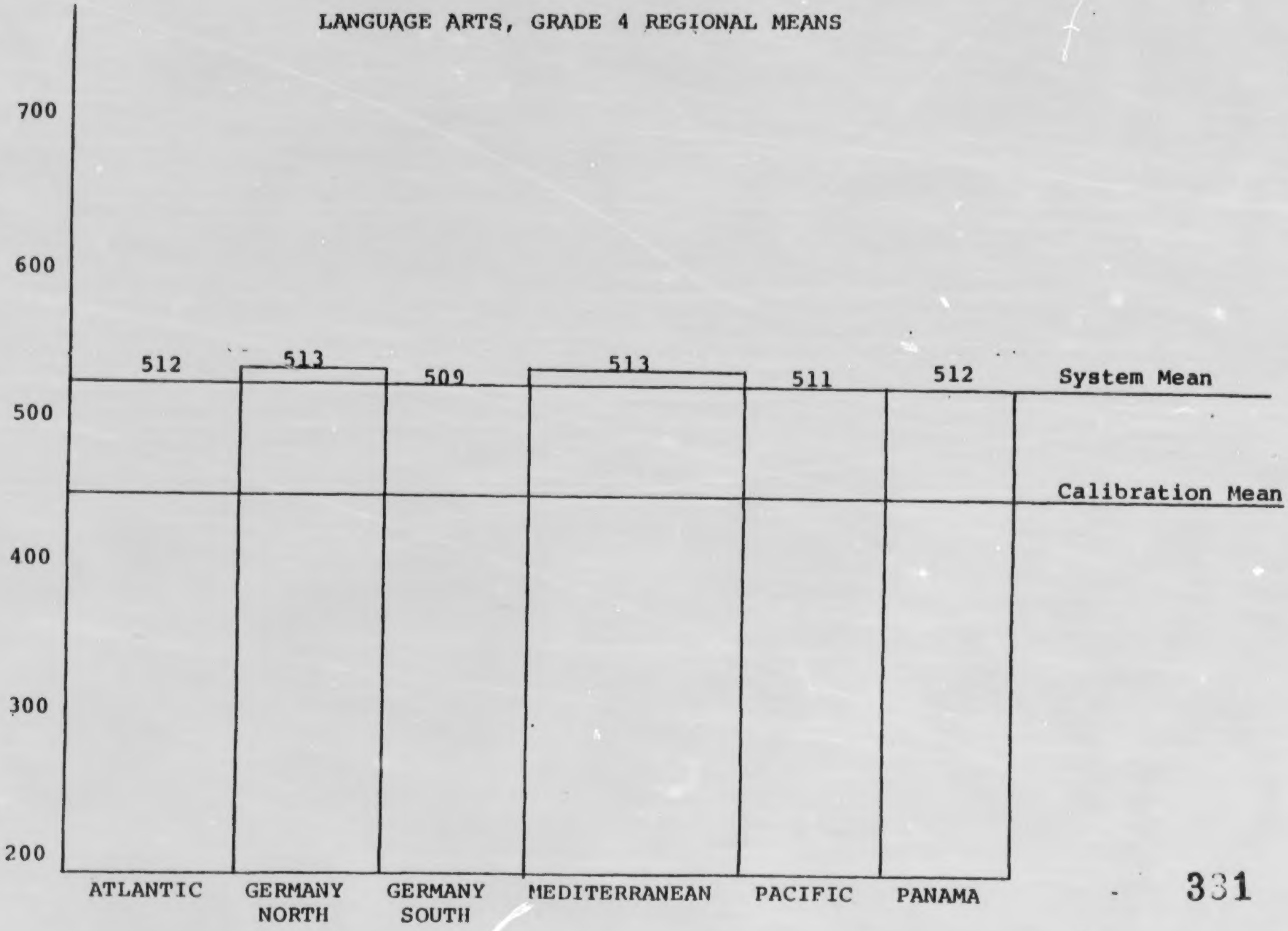
bought
caught
around
found
would
should
could
enough

Even where group-performance levels were below 70%, the indication is that the subskill areas have been introduced and that, with further instructional/learning experiences, the group-performance levels will rise.

Figure 71 represents regional means in relation to DoDDS system and national calibration means. Regional coordinators may wish to apply a similar criterion for analysis, comparing regional findings with those discussed previously in this report.

FIGURE 71

LANGUAGE ARTS, GRADE 4 REGIONAL MEANS



Language Arts Findings, Curricular Implications and Recommendations

DoDDS Language Arts Objectives: Sixth Grade

The student should be able to:

- recognize direct quotations
- use the comma to set off direct address
- use the comma in the greeting and close of a letter
- use the apostrophe in singular possessives
- use the apostrophe in plural possessives
- use the hyphen for word division
- use verb tenses correctly
- have subject and verb agree
- avoid double negatives
- use pronouns correctly
- use adjectives and adverbs correctly
- recognize subject and predicate
- recognize complete sentences
- recognize run-on and incomplete sentences
- use appositives
- compound and coordinate sentences
- spell long final vowel sounds
- spell short vowel digraphs
- spell words frequently misspelled due to mispronunciation
- use correct form for friendly letter
- use correct form for addressing envelope

Performance on Objectives

As shown in Table 73, for grade 6 a Pasch score of 534 is equivalent to answering 70% of the items correctly. Approximately 73% of the sixth graders tested correctly answered 70% of the items. Performance was excellent and findings suggest that test objectives were attainable by the majority of pupils. Findings suggest that the test objectives provided an effective assessment instrument for examining both exit skills and achievement levels for pupils completing the elementary grades.

Discussion

Performance at or above a 70% observed group performance on the above items indicates a strong instructional program. Only one item has a significant negative discrepancy: Item 18, Recognize incomplete sentence (Table 83). On the other hand, three items have significant positive discrepancies: Item 22, Friendly letter form; Item 01, Recognize direct quotation; and Item 13, Use adverb forms (Table 81).

TABLE 81

Grade 6 Language Arts Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
25	Spelling-end long vowel	379	97	96	-1
26	Spelling-vowel digraph	391	96	95	-1
27	Spelling-frequently misspelled due to mispronunciation	423	92	95	+3
22	Friendly letter form	462	85	90	+5
24	Combine simple sentences	444	89	89	+0
17	Recognize incomplete sentences	439	90	88	-2
10	Subject-verb agreement	450	87	88	+1
08	Word division-syllabication	455	86	87	+1
11	Avoid double negative	468	83	84	+1
20	Address envelope form	464	84	83	-1
23	Combine simple sentences	469	83	83	+0
21	Friendly letter form	477	81	81	+0
01	Recognize direct quotation	512	69	80	+11
18	Recognize incomplete sentence	461	85	80	-5
29	Spelling-frequently misspelled due to mispronunciation	495	75	75	+0
03	Comma after comp. close of letter	499	73	74	+1
02	Recognize direct quotation	500	73	74	+1
15	Adjective-comparative and superlative	498	74	74	+0
13	Use adverb forms	524	64	73	+9
12	Use pronouns correctly	506	71	73	+2

Discussion

Recognize complete sentence is a skill which is stressed through grade 6 (DoDDS scope and sequence). The difficulty of this skill is illustrated by the item used (545 difficulty level). The grade 6 mean of 556 establishes that 54% of the pupils should answer the item correctly; in actuality, 65% of grade 6 pupils answered correctly. Higher than expected performance indicates a strong instructional program; however, the difficulty of the skill indicates a need for further instruction for 35% of DoDDS sixth graders.

Comma after introductory phrase is a skill necessary for sentence clarity. Performance is higher than expected. It represents a comma skill in progress: further instructional practice is required for 37% of DoDDS sixth graders.

Subject-verb agreement is a skill stressed from grades 3 through 6 in DoDDS scope and sequence. The difficulty range of this skill is represented by Item 09, which 49% of DoDDS sixth graders were expected to answer correctly based on the grade 6 mean of 556. The item represents the traditionally more difficult skill of using "either" as a singular subject. The finding indicates that the skill requires further practice for more than half of the sixth graders: the difficulty range indicates that the skill must be taught beyond grade 6.

Apostrophe-singular and plural possession is stressed in DoDDS scope and sequence from grades 3 through 6. Performance lower than expected for grade 6 pupils on three items (Items 05, 06 and 07) indicates need for further skill development beyond grade 6 in use of apostrophe for possession.

Recognize run-on sentence is stressed from grades 4 through 6 in DoDDS scope and sequence. Findings show that 68% of grade 6 pupils need further instruction; the difficulty range of the skill indicates that instruction must continue beyond grade 6.

Use pronouns correctly comes under several sub-skill categories (antecedents, gender, case, etc.) Item 14 required the pupil to select "I" as the subject of the sentence without using the grammatical terminologies of subject/predicate or nominative case. Difficulty level of the item (501) indicates that 73% of grade 6 pupils should have answered correctly. Performance lower than expected (-7%) indicates a need for instructional review of this skill.

TABLE 82

Grade 6 Language Arts Test Items with Group Performance Below the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
19	Recognize complete sentence	545	54	65	+11
04	Comma-introductory phrase	538	57	63	+6
[illegible]9	Subject-verb agreement	556	49	48	-1
[illegible]	Apostrophe-plural poss.	535	59	57	-2
[illegible]5	Apostrophe-singular poss.	527	62	56	-6
16	Recognize run-on sent.	581	38	32	-6
07	Apostrophe-plural poss.	575	41	34	-7
14	Use pronouns correctly	501	73	66	-7

TABLE 83

Grade 6 Language Arts Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
01	Recognize direct quotation	512	69	80	+11
19	Recognize complete sentence	545	54	65	+11
13	Use adverb forms	525	64	73	+9
04	Comma-introductory phrase	538	57	63	+6
22	Friendly letter form	462	85	90	+5
18	Recognize incomplete sentence	461	85	80	-5
16	Recognize run-on sentence	581	38	32	-6
05	Apostrophe-singular poss.	527	62	56	-6
07	Apostrophe-plural poss.	575	41	34	-7
14	Use pronouns correctly	501	73	66	-7

Items discussed below show a deviation or discrepancy between the expected and observed percent correct at or above the 5% level.

Recognize direct quotation - 80% of pupils correctly answering this item indicates a strong instructional emphasis.

Recognize complete sentence - Difficulty of skill is illustrated by the item used (545 difficulty level). The grade 6 mean of 556 establishes that 54% of the pupils should answer the item correctly; in actuality, 65% of grade 6 pupils answered correctly.

Use adverb forms - 73% of pupils correctly answering this item indicates strong instructional emphasis; also may be attributed to pupil exposure to correct language use in the home and educational environment as much as to instructional emphasis on forming adverbs correctly.

Comma - introductory phrase - 63% of pupils correctly answering this more difficult example of comma use indicates skill in progress. Performance is higher than expected for age/grade level based on grade 6 mean.

Friendly letter form - 90% of DoDDS grade 6 pupils were able to correctly place the complimentary close on a friendly letter.

Recognize incomplete sentence - Performance lower than expected indicates need for additional emphasis for 20% of DoDDS sixth graders. Item requires pupil to apply instructional/learning experiences in the "logic" of the subject and predicate completeness without grammatical terminology.

Recognize run-on sentence - Findings show that 68% of grade 6 pupils need further instruction; the difficulty range of the skill indicates that instruction must continue beyond grade 6.

Apostrophe-singular possession - Performance lower than expected based on grade 6 mean of 556. Forty-four percent of grade 6 pupils need additional instructional emphasis on this skill.

Apostrophe - plural possession - Difficulty of skill is illustrated by the item used (575 difficulty level). The grade 6 mean of 556 establishes that 41% of the pupils should answer the item correctly; in actuality, 34% of grade 6 pupils answered correctly.

Use pronouns correctly - Difficulty of item indicates that 73% of grade 6 pupils should have answered correctly; observed performance is that 66% answered correctly. Need for additional instructional emphasis is indicated.

Grade 6 Curricular Implications and Recommendations

Grade 6 overall performance on the basic skills language arts test was satisfactory. Approximately 73% of the pupils responded correctly to 70% of the test items. Test results confirm that all objectives selected were appropriate for this grade level.

Continued instructional emphasis is recommended for the following sub-skills which were tested:

- Use pronouns correctly
- Recognize complete sentence
- Comma - after introductory phrase
- Apostrophe - singular possession
- Apostrophe - plural possession
- Subject-verb agreement
- Recognize run-on sentence

Fewer than 70% of all sixth graders were able to answer these items correctly. However, these items range in difficulty from 501 to 581. With a grade level mean of 556, it is reasonable to assume that additional emphasis could increase the percentage of pupils mastering these skills.

With a -7% discrepancy, Item 14, use of pronoun as a subject of sentence, deserves specific consideration. Many educators agree that it is possible to teach and reinforce the use of "I" as the correct subject form without teaching the grammatical terminology of the nominative case, which may be more appropriate to junior high school. "John and me," or (worse) "Me and John," incorrectly used as the subject of the sentence is ingrained in everyday speech. Constant reinforcement of "I" as the correct subject form is required.

At grades 3 and 4 as well as at grade 6, group performance is below expectation in dealing with incomplete sentences. At grade 6 the recognition of the run-on sentence was tested as well, and group performance was below expectation. Performance levels may rise with increased instructional/learning experiences which emphasize generation of original sentences and manipulation of sentence parts followed by a simple analysis for completeness. The National Council of Teachers of English endorses daily or very frequent experiences in writing. "Pupils learn to write by writing ."

Use of the apostrophe to show singular or plural possession is strictly a mechanical skill of writing. Apostrophes are not considered in speaking: they are neither inflected, as is the question mark, nor given natural pause, as is the comma. According to DoDDS scope and sequence, apostrophe skills are introduced in grade 3 and stressed through grade 6. It would be more appropriate to continue emphasis and review this skill at more advanced levels (as no doubt is actually done).

Grade 6 Performance Summary

The findings reported in this section of the technical report are based on spring, 1980 test results obtained from 9,158 grade 6 pupils. Overall performance for DoDDS sixth graders was satisfactory or above. Twenty out of twenty-nine items testing the objectives were met by 70% or more of the pupils tested (Table 73).

An exceptionally high percentage of pupils performing successfully was noted in Spelling - end long vowel, Spelling - vowel digraph, Spelling - frequently misspelled due to mispronunciation, and the Friendly letter form. Pupils performed at or above expectation in items dealing with Combining simple sentences, less difficult example of Subject-verb agreement, Word-division - syllabication, Avoid double negative, Recognize direct quotation, Comma after complimentary close of letter, Degrees of adjective, Use adverb forms, Use pronouns correctly (only in choosing the objective form of "him and her," not in choosing the nominative form of "I").

Objectives that had items in which group performance was significantly below expectation (greater than 5% negative deviation between expected and observed performance) were as follows: Use pronouns correctly (choosing nominative form "I" as subject of sentence); Apostrophe - singular possession; Apostrophe - plural possession; and Recognize run-on sentence.

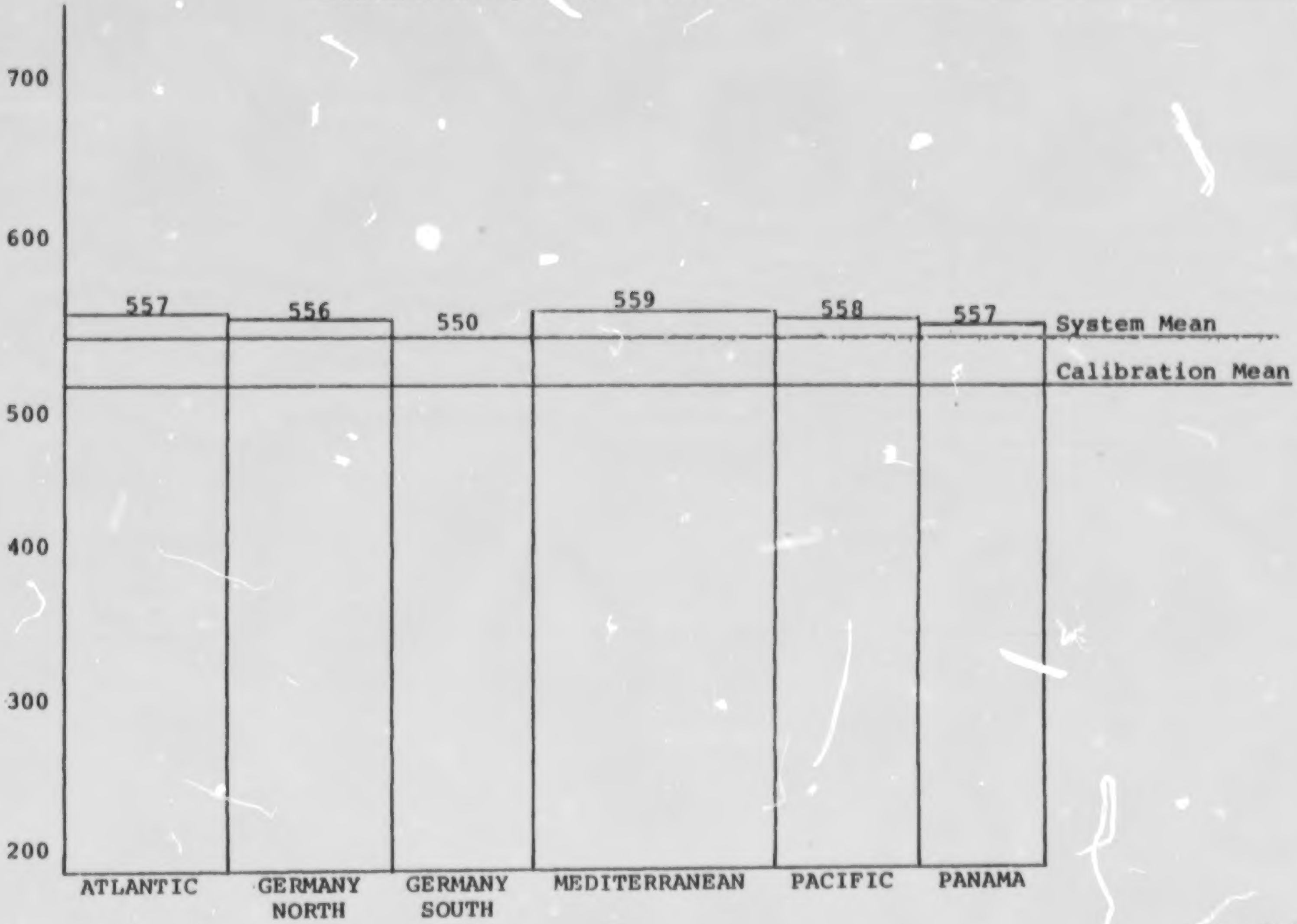
Comma skills require constant practice. A maturity of expression is dependent upon clarity -- and the comma is a major device of clarity. DoDDS scope and sequence should stress comma skills beyond grade 6 (as no doubt is done in actual classroom settings).

Even where group performance levels were below 70%, the indication is that the subskill areas have been introduced and that with further instructional/learning experiences the group-performance levels will rise.

Figure 72 represents regional means in relation to DoDDS system and national calibration means. Regional coordinators may wish to apply a similar criterion for analysis, comparing regional findings with those discussed previously in this report

FIGURE 72

LANGUAGE ARTS, GRADE 6 REGIONAL MEANS



DoDDS Language Arts Objectives: Ninth Grade

The student should be able to:

- use the comma for clarity
- use the apostrophe for singular and plural possessives
- form plural possessives
- use verb tenses correctly
- have subject and verb agree
- avoid double negatives
- use pronouns correctly
- use adjectives and adverbs correctly
- recognize subject and predicate
- recognize run-on and incomplete sentences
- recognize the parts of a business letter
- use appositives
- coordinate and subordinate ideas in a sentence
- identify the topic sentence of a paragraph
- identify subordinate detail in a paragraph
- identify the main idea of a paragraph
- spell long final vowel sounds
- spell consonant units
- spell short vowel digraphs
- spell with vowel consonant marker e pattern
- spell words frequently misspelled due to mispronunciation

Performance on Objectives

As shown on Table 73 for grade 9, a Rasch score of 570 is equivalent to correctly answering 70% of the items. Approximately 63% of the ninth graders tested correctly answered 70% of the items. Findings suggest that, based on student performance, there were proportionately more items testing achievement levels than minimal skills.

TABLE 84

Grade 9 Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
29	Spelling-end long vowel	379	98	98	-2
09	Subject-verb agreement	513	77	93	+16
14	Recognize incomplete sentence	450	92	93	+1
15	Recognize incomplete sentence	461	90	93	+3
31	Spelling-vowel digraph	424	95	92	-3
10	Avoid double negative	457	90	90	+0
07	Verb tense	466	89	89	+0
24	Paragraph-main idea	475	87	89	+2
32	Spelling-medial vowel-marker e pattern	469	88	89	+1
19	Coordinating ideas in sentence	487	84	88	+4
23	Paragraph-main idea	479	86	87	+1
33	Spelling-freq. mis-spelled due to mispronunciation	520	75	87	+12
08	Subject-verb agreement	488	84	85	+1
01	Commas-introductory phrase	538	68	83	+15
02	Commas-compound sentence	466	89	82	-7
18	Business letter form	512	77	81	+4
28	Paragraph-subord. detail	515	76	76	+0
27	Paragraph-subord. detail	504	80	75	-5
25	Paragraph-main idea	545	65	75	+10
03	Commas-appositive	539	67	74	+7
16	Recognize complete sentences	535	69	74	+5

Discussion

Group performance at or above 70% on the above items indicates a strong instructional program. Only two items have a significant negative discrepancy: Item 02, Commas-compound sentence; and Item 27, Paragraph-subordinate detail (Table 86). On the other hand, six items have significant positive discrepancies: Item 16, Subject-verb agreement; Item 33, Spelling-frequently misspelled due to mispronunciation; Item 01, Commas-introductory phrase; Item 25, Paragraph-main idea; Item 03, Commas-appositive; and Item 16, Recognize complete sentences (Table 86).

Recognize incomplete sentences is a skill which shows positive skill growth from grades 4 and 6, where the skill was also tested. Sixty-six percent of grade 9 students were able to answer the item correctly, which is above expectation based on the grade 9 mean of 580.

Subject and predicate identification shows positive growth from grade 4, where the skill was also tested and has been taught since grade 3 (DoDDS scope and sequence: Grades 3 - 12). Thirty-six percent of grade 9 students need further instruction.

Comma-interrupting elements represents a skill when grade 9 students are showing strong progress toward mastery. Performance is higher than expected (+8% based on grade 9 mean of 580).

Paragraph-topic sentence skill shows better than expected performance (+10) based on grade 9 mean of 580. Difficulty level of item is 595.

Apostrophe-plural possession item shows group performance lower than expected. Performance on this skill is below expectation at grade 6, also.

Use pronouns correctly - Item requires student to choose "me" as the object of a preposition (without grammatical terminology). Performance is slightly above expectation (+1%) based on grade 9 mean of 580.

Coordinating ideas in a sentence represents a skill of sentence manipulation. Group performance (-13%) and (-2%) indicates need for additional instructional/learning activities. Items require student to coordinate two ideas in a sentence so that each idea has equal importance.

Subordinating ideas in a sentence represents another skill of sentence manipulation. Group performance is slightly below expectation (-3%). Item requires student to make one idea more important than another in a sentence.

Adjectives-comparative and superlative - Item represents a more advanced application of the skill (item difficulty is 600; grade 9 mean is 580). Item requires student to choose "better" when comparing two things.

Spelling-doubling consonant - Skill item represents the most negative group performance level (-33%). Item requires student to select the correct spelling for "possession,"

TABLE 85

Grade 9 Language Arts Test Items with Group Performance Below the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
17	Recognize incomplete sentence	568	55	66	+11
13	Subject and predicate	567	56	64	+8
04	Comma-interrupting elements	570	55	63	+8
26	Paragraph-topic sentence	595	43	53	+10
05	Apostrophe-plural poss.	575	52	44	-8
11	Use pronouns correctly	595	43	44	+1
20	Coordinating ideas in sentence	564	57	44	-13
22	Subordinating ideas in sentence	593	44	41	-3
12	Adjective-comp. & superlative	600	41	40	-1
30	Spelling-doubling consonant	545	65	32	-33
21	Coordinating ideas in sentence	683	13	11	-2

TABLE 86

Grade 9 Language Arts Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
09	Subject-verb agreement	513	77	93	+16
01	Commas-introductory phrase	538	68	83	+15
33	Spelling-frequently misspelled due to mispronunciation	520	75	87	+12
17	Recognize incomplete sentence	568	55	66	+11
25	Paragraph-main idea	545	65	75	+10
26	Paragraph-topic sentence	595	43	53	+10
04	Comma-interrupting elements	570	55	63	+8
13	Subject and predicate	567	56	64	+8
03	Commas-appositive	539	67	74	+7
16	Recognize complete sentence	535	69	74	+5
27	Paragraph-subordinate detail	504	80	75	-5
02	Commas-compound sentence	466	89	82	-7
05	Apostrophe-plural poss.	575	52	44	-8
20	Coordinating ideas in sentence	564	57	44	+1
30	Spelling-doubling consonant	545	65	32	-33

Items discussed below show a deviation or discrepancy between the expected and observed percent correct at or above the 5% level.

Subject-verb agreement - Ninety-three percent of students correctly answering this item indicates strong instructional emphasis.

Comma-introductory phrase - Higher than expected group performance indicates positive skill growth. Of interest is that the same item was used with grade 6: 63% of grade 6 pupils answered the item correctly; 83% of grade 9 students answered the item correctly.

Spelling-frequently misspelled due to mispronunciation - Eighty-seven percent of students correctly answering this item indicates positive skill growth. Item requires students to distinguish the incorrectly spelled word from three which are correct.

Recognize incomplete sentence - The difficulty of this skill is illustrated by the item used (568 difficulty level). The grade 9 mean establishes that 55% of the students should answer the item correctly; in actuality, 66% of grade 9 pupils answered correctly.

Paragraph-main idea - Higher than expected group performance indicates strong instructional emphasis. Skill is more closely tied to reading than to writing. Item requires student to select a sentence which does not develop the paragraph topic.

Paragraph-topic sentence - Higher than expected group performance indicates positive skill growth. Item requires student to select a topic sentence for a paragraph. As in Item 25, the skill is more closely tied to reading than to writing.

Comma-interrupting elements - Higher than expected group performance indicates positive skill growth. Item difficulty of 570 compared to the grade 9 mean of 580 indicates that 55% of grade 9 students should have answered the item correctly; in actuality, 63% of grade 9 students answered the item correctly.

Subject and predicate - Sixty-four percent of grade 9 students answering this item correctly showed a higher than expected performance of +8%. The skill of identifying subject/predicate by grammatical terminology is tested at grades 3, 4, 6, 9 and 11. A steady growth in skill development is charted.

Comma-appositive - Higher than expected group performance indicates positive skill growth. Seventy-four percent of grade 9 students answered Item 03 correctly.

Recognize complete sentence - Higher than expected group performance indicates positive skill growth. Seventy-four percent of grade 9 students answered Item 16 correctly. The skill of identifying complete sentences is tested at grades 3, 4, 6, 9 and 11. A steady growth in skill development is charted.

Paragraph-subordinate detail - Based on grade 9 mean of 580, 80% of ninth graders were expected to answer Item 27 correctly; in actuality, 75% answered the item correctly. Item requires students to sequence sentences properly in a paragraph.

Commas-compound sentence - Based on grade 9 mean of 580, 89% of ninth graders were expected to answer Item 02 correctly; in actuality, 82% answered the item correctly. Item requires students to separate the parts of a compound sentence with a comma (without grammatical terminology).

Apostrophe-plural possession - Based on grade 9 mean of 580, 52% of ninth graders were expected to answer Item 05 correctly; in actuality, 44% answered correctly. Item requires students to place an apostrophe after "friends" in the sentence which begins "My two best friends' houses were ..."

Coordinating ideas in sentence - Based on grade 9 mean of 580, 57% of ninth graders were expected to answer Item 20 correctly; in actuality, 44% answered correctly. Item requires students to coordinate two ideas in one sentence so that each idea has equal importance.

Spelling-double consonant - Based on grade 9 mean of 580, 65% of ninth graders were expected to answer Item 30 correctly; in actuality, 32% answered correctly. The skill of doubling consonants is discussed under curricular implications.

Grade 9 Performance Summary

The findings reported in this section of the technical report are based on spring, 1980 test results obtained from 9,159 grade nine students. Overall performance for DoDDS ninth graders was satisfactory. Twenty-three items correct out of thirty-three items represents a 70% performance level; 63% of the ninth graders met this level of performance. Test results confirm that objectives selected were appropriate for this grade level.

An exceptionally high percentage of students performing successfully was noted in Spelling-end long vowel, Subject-verb agreement, Spelling-vowel digraph, less difficult examples of Recognizing incomplete sentences, and Avoiding double negative.

Students performed at or above expectation in items dealing with Verb tense, Paragraph-main idea, Spelling-medial-vowel marker e pattern, Spelling-words frequently misspelled due to mispronunciation, less difficult example of Coordinating ideas in a sentence, Business letter form, Commas-appositive, Recognizing complete sentences, Recognizing incomplete sentences, Subject and predicate, and Paragraph-topic sentence.

Objectives that had items in which group performance was significantly below expectation (greater than 5% negative deviation between expected and observed performance) were as follows: more difficult example of Coordinating ideas in a sentence, Spelling-doubling consonant, Commas-compound sentence, and Paragraph-subordinate detail.

Continued instructional emphasis is recommended for the following sub-skills which were tested:

- Recognize incomplete sentence
- Subject and predicate
- Comma-interrupting elements
- Paragraph-topic sentence
- Apostrophe-plural possession
- Use pronouns correctly
- Coordinating ideas in a sentence
- Subordinating ideas in a sentence
- Adjective-comparative and superlative
- Spelling-doubling consonant markers

Fewer than 70% of all ninth graders were able to answer these items correctly. However, these items range in difficulty from 545 to 683. With a grade level mean of 580, it is reasonable to assume that additional emphasis could increase the percentage of students mastering these skills.

Areas for specific consideration include:

Use of the apostrophe-plural possession - Correct use of the apostrophe -- whether in singular or plural possession, contraction, or for the limited use of showing plural -- is strictly a mechanical skill of writing. Apostrophes are not considered in speaking: they are neither inflected, as is the question mark, nor given natural pause, as is the comma. According to DoDDS scope and sequence, apostrophe skills are introduced in grade 3 and stressed through grade 6. It would be appropriate to continue emphasis and review this skill at more advanced levels (as no doubt is actually done).

Pronoun use - For students to employ standard English usage, greater emphasis must be given to pronoun choice. Students should have an understanding of pronoun forms to be used as a subject (I, you, he , she, they) and pronoun forms to be used as an object (me, you, her, him, them). A related skill area which may need emphasis is identifying sentence patterns (subject-verb-object, etc.: DoDDS scope and sequence - grades 6-12).

Adjectives-comparative and superlative - Another convention of standard English usage is forming the positive, comparative, and superlative degrees of the adjective. Simple practice and review should suffice to improve this skill area. The "good, better, best" and "much, more, most" type of exercises are easily invented by the teacher or can be found in textbooks.

Coordinating and subordinating ideas in a sentence - The ability to manipulate ideas within a sentence -- whether to give two things equal importance or make one thing less important than another -- is directly related to practical experience. Most teachers would have difficulty giving a mechanical prescription for this important writing skill; however, most teachers can easily illustrate the skill or use textbooks which give models and exercises. "Students learn about writing by writing." The ability to build and change sentences -- to manipulate ideas within sentences -- must be practiced frequently.

Spelling-doubling consonant marker - Group performance level was below expectation on the doubling consonant marker spelling skill. Words to illustrate this subskill include:

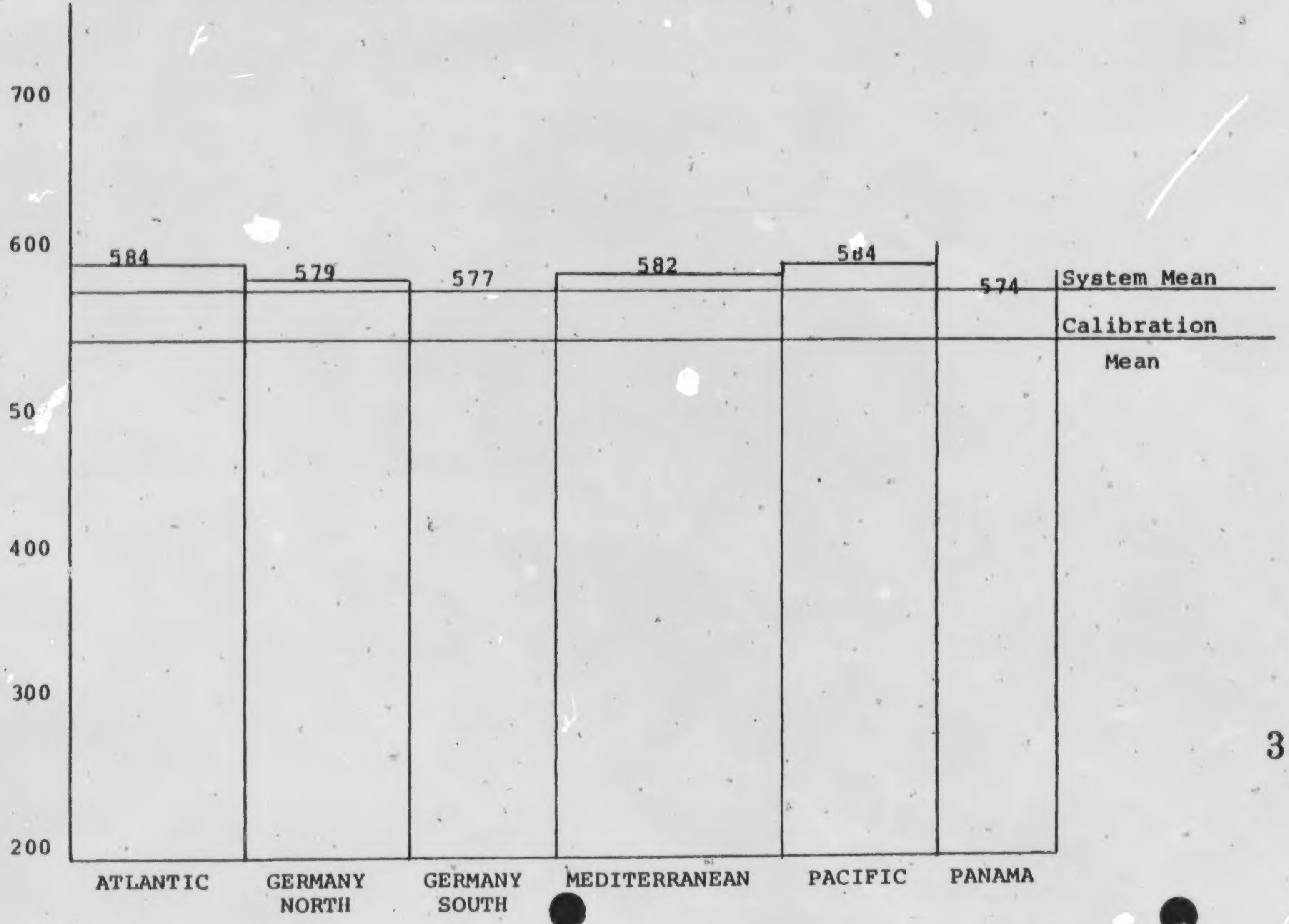
possession
professor
confession
accommodate
succession
occasion
occurred
coffee

Even where group performance levels were below 70%, the indication is that the subskill areas have been introduced and that with further instructional/learning experiences, the group performance levels will rise.

Figure 73 represents regional means in relation to DoDDS system and national calibration means. Regional coordinators may wish to apply a similar criterion for analysis, comparing regional findings with those discussed previously in this report.

FIGURE 73

LANGUAGE ARTS, GRADE 9 REGIONAL MEANS



DoDDS Language Arts Objectives: Eleventh Grade

The student should be able to:

- use the comma for clarity
- use the apostrophe to show plurals
- form the plural possessive
- use the colon to precede formal lists or series
- use pronouns correctly
- use verb tenses correctly
- have subject and verb agree
- recognize subject and predicate
- recognize complete sentences
- recognize run-on and incomplete sentences
- use appositives
- coordinate and subordinate ideas in a sentence
- invert word order in sentences
- identify the topic sentence of a paragraph
- identify subordinate detail in a paragraph
- identify the main idea of a paragraph
- identify closing statement for a paragraph
- identify the pattern of paragraph development
- recognize levels of generalization in writing
- recognize parts of a business letter
- recognize appropriate discourse for a business letter
- spell prefixes
- spell consonant units
- spell less common vowel units

Performance on Objectives

As shown on Table 73, for grade 11 a Rasch score of 579 is equivalent to answering 70% of the items correctly. Approximately 82% of the eleventh graders tested correctly answered 70% of the items. Findings suggest that the test objectives provided an effective assessment instrument for examining achievement levels for students completing the eleventh grade.

TABLE 87

Grade 11 Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
05	Subject-verb agreement	424	96	96	+0
32	Spelling-uncommon vowel unit	427	96	95	-1
31	Spelling-consonant units	438	95	95	+0
19	Paragraph-main idea	531	77	93	+16
28	Spelling-prefixes	485	89	92	+3
30	Spelling-doubling consonant	443	95	91	-4
08	Recognize run-on sentence	537	75	89	+14
16	Business letter-discourse	489	88	88	+0
25	Paragraph-topic sentence	510	83	87	+4
06	Pronoun choice	466	92	86	-6
10	Recognize incomplete sentence	524	79	86	+7
27	Paragraph-closing statement	502	85	86	+1
29	Spelling-consonant units	455	93	86	-7
02	Commas-interpreting elements	520	80	83	+3
26	Paragraph-closing statement	512	82	80	-2
23	Paragraph-pattern of develop.	559	66	79	+13
09	Recognize complete sentence	564	64	77	+13
22	Paragraph-subordinate detail	484	89	75	-14
24	Paragraph-pattern of develop.	509	83	74	-9
18	Level of generalization	546	72	72	+0

Discussion

Performance at or above a 70% observed group performance on the above items indicates a strong instructional program. Four items have significant negative discrepancies: Item 06, Pronoun choice; Item 29, Spelling-consonant units; Items 22 and 24, Paragraph-pattern of development (discussed after Table 89). On the other hand, five items have significant positive discrepancies: Item 19, Paragraph-main idea; Items 08 and 10, Recognize incomplete sentence; Item 23, Paragraph-pattern of development; and Item 09, Recognize complete sentence (discussed after Table 89).

TABLE 88

Grade 11 Language Arts Test Items with Group Performance Below the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
03	Colon before formal list	570	62	68	+6
07	Subject-verb agreement	560	66	68	+2
11	Business letter format	556	68	68	+0
20	Paragraph-subordinate detail	572	61	64	+3
21	Paragraph-topic sentence	579	58	64	+6
17	Level of generalization	592	52	52	+0
12	Business letter format	550	70	50	-20
04	Subject and predicate	620	39	43	+4
01	Apostrophe-plural	616	42	42	+0
15	Sentence-subordinate ideas	595	51	41	-10
13	Forming an apositive	621	39	36	-3
14	Sentence-inverted word order	629	36	23	-13

Colon before formal list is a skill for which 32% of eleventh graders need further instruction. Item requires student to place a colon to introduce a series in which parts are separated by semi-colons.

Subject-verb agreement is a skill for which 32% of eleventh graders need further instruction. Item requires student to select a plural verb, "appeal," for a compound subject, "The president and secretary..."

Business letter format skills are represented by two items on which group performance falls below 70%. Item 11 (68%) and Item 12 (50%). Items require student to identify the heading and to place correctly the salutation on a business letter.

Paragraph-subordinate detail is a skill for which 36% of eleventh graders need further instruction. Item requires student to eliminate an irrelevant sentence from a paragraph.

Paragraph-topic sentence - Skill is represented by an item which requires the student to select a definition for sentences in a paragraph as "developing the main thought" of the topic sentence. 36% of the eleventh graders did not select the correct definition.

Level of generalization - Skill is represented by an item which requires the student to select the most specific wording of an incident. 48% of the eleventh graders did not select the correct answer.

Subject and predicate - Skill is represented by a more difficult item (item difficulty of 620) for which 57% of the eleventh graders could not choose the correct answer. Item requires student to choose the simple predicate, which would eliminate the adverb "never." Based on the grade 11 mean of 596, it was anticipated that 39% would answer correctly; in actuality, 43% answered correctly.

Apostrophe-plurals - Skill is represented by an item which requires the student to place an " 's " in the sentence "We had two Tom's on our hockey team." 58% of the eleventh graders did not answer the item correctly.

Sentence-subordinate ideas - Skill is represented by an item that requires the student to select the sentence in which one idea is made more important than the other. 59% of the grade 11 students were unsuccessful with the item.

Forming an appositive - Skill is represented by an item that requires the student to know the grammatical term, "appositive," as well as select the illustration of an appositive. 64% of the grade 11 students were unsuccessful with the item.

Sentence-inverted word order - Skill is represented by the most difficult item on the test (629). Item required the student to select the sentence which correctly (clearly) inverts the word order. Seventy-seven percent of the grade 11 students were unsuccessful with the item.

TABLE 89

Grade 11 Language Arts Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
19	Paragraph-main idea	531	77	93	+16
08	Recognize run-on sentence	537	75	89	+14
23	Paragraph-pattern of development	559	66	79	+13
09	Recognize complete sentence	564	64	77	+13
10	Recognize incomplete sentence	524	79	86	+7
03	Colon before formal list	570	62	68	+6
21	Paragraph-topic sentence	579	58	64	+6
06	Pronoun choice	466	92	86	-6
29	Spelling-consonant units	455	93	86	-7
24	Paragraph-pattern of development	509	83	74	-9
15	Sentence-subordinate ideas	595	51	41	-10
14	Sentence-inverted word order	629	36	23	-13
22	Paragraph-subordinate detail	484	89	75	-14
12	Business letter format	550	70	50	-20

Items discussed below show a deviation or discrepancy between the expected and observed percent correct at or above the 5% level.

Paragraph-main idea - Based on the grade 11 mean of 596, it was expected that 77% of the eleventh graders would answer the item correctly; in actuality, 93% answered correctly. Indicates strong instructional emphasis.

Recognize run-on sentence - Based on the grade 11 mean of 596, it was expected that 75% of eleventh graders would answer the item correctly; in actuality, 89% answered correctly. Of interest is that this skill shows positive growth from lower grade levels at each grade level tested.

Paragraph-pattern of development - This skill is represented by two items, one with a +13% deviation which required the student to identify a sentence which gives a reason rather than detail, example, or comparison. The less difficult item has a -9% deviation and requires the student to identify a sentence as an example of comparison rather than detail, reason, or example. The finding is that grade 11 students are more successful with recognizing "reason" as a pattern of development than "comparison."

Recognize complete sentence - Based on the grade 11 mean of 596, it was expected that 64% of eleventh graders would answer the item correctly; in actuality, 77% answered correctly. Of interest is that this skill shows positive growth from lower grade levels at each grade level tested.

Recognize incomplete sentence - Based on the grade 11 mean of 596, it was expected that 79% of eleventh graders would answer the item correctly; in actuality, 86% answered correctly. Of interest is that this skill shows positive growth from lower grade levels at each grade level tested.

Colon before formal list - Skill is well in progress toward acceptable mastery level. Based on grade 11 mean of 596, it was expected that 67% of eleventh graders would answer the item correctly; in actuality, 68% answered correctly.

Paragraph-topic sentence - Skill well in progress toward acceptable mastery level. Grade 11 students performed higher than expected on the more difficult item, Item 21 (+6%); students performed at higher level of mastery on a less difficult item, Item 25 (87%).

Pronoun choice - Based on the grade 11 mean of 596, it was expected that 92% of eleventh graders would answer the item correctly; in actuality, 86% answered correctly. Item requires students to choose "him" as correct pronoun for an indirect object (without grammatical terminology).

Spelling-consonant units - Based on the grade 11 mean of 596, it was expected that 93% of eleventh graders would answer the item correctly; in actuality, 86% answered correctly. Item requires students to choose correct spelling for "absent."

Paragraph-pattern of development - Based on the Grade 11 mean of 596, it was expected that 83% of eleventh graders would answer the item correctly; in actuality, 75% answered correctly. Item requires students to select a sentence as an example of comparison rather than detail, reason, or example.

Sentence-subordinate ideas - Based on grade 11 mean of 596, it was expected that 51% of eleventh graders would answer the item correctly; in actuality, 41% answered correctly. Item requires students to make one idea less important than another in a sentence.

Sentence-inverted word order - Based on the grade 11 mean of 596, it was expected that 36% of eleventh graders would answer the item correctly; in actuality, 23% answered correctly. Item requires students to reverse (invert) the word order of a sentence.

Paragraph-subordinate detail - Based on grade 11 mean of 596, it was expected that 89% of eleventh graders would answer the item correctly; in actuality, 75% answered correctly. Item requires students to put the sentences of a paragraph in the correct order.

Business letter format - Based on the grade 11 mean of 596, it was anticipated that 70% of eleventh graders would answer the item correctly; in actuality, 50% answered correctly. Item requires students to place the "salutation" correctly on a business letter format.

Grade 11 Performance Summary

The findings in this section of the technical report are based on spring, 1980 test results obtained from 4,879 grade eleven students. Overall performance for DoDDS eleventh graders is satisfactory. Twenty-two of our thirty-two items correct represents a mastery level of 70%; 71.95% of DoDDS grade 11 students achieved a mastery level at or above 70%.

An exceptionally high number of students performing successfully was noted in: Spelling-uncommon vowel units, Spelling-prefixes, Spelling-doubling consonant and Paragraph-main idea. Students performed at or above 70% level of expectation in items dealing with: Recognize run-on sentence, Recognize incomplete sentence, Recognize complete sentence, Paragraph-topic sentence, Paragraph-closing statement, Business letter-level of discourse, Level of generalization, and Commas-interpreting elements.

Objectives that had items in which group performance was significantly below expectation (greater than -5% negative deviation between expected and observed performance) were as follows: Pronoun choice, Spelling-consonant units, Paragraph-pattern of development, Sentence-subordinate ideas, Sentence-inverted word order, Paragraph-subordinate detail, and Business letter format.

Grade 11 Curricular Implications and Recommendations

Grade 11 overall performance on the basic skills language arts test was satisfactory. Approximately 72% of the students responded correctly to 70% of the test items. Test results confirm that all objectives selected were appropriate for this grade level.

Continued instructional emphasis is recommended for the following sub-skills which were tested:

- Colon before formal list
- Subject-verb agreement
- Business letter format
- Paragraph-subordinate detail
- Paragraph-topic sentence
- Level of generalization
- Subject and predicate
- Apostrophe-form plural
- Sentence-subordinate ideas
- Sentence-inverted word order
- Sentence-form an appositive

Fewer than 70% of all grade 11 students were able to answer these items correctly. However, these items range in difficulty from 556 to 629. With a grade level mean of 596, it is reasonable to assume that additional emphasis could increase the percentage of students mastering these skills.

Specific skill areas for consideration include the following:

Apostrophe-form plural - Use of the apostrophe to show plural (e.g., He earned all A's on his report card) represents a less common use of the apostrophe than for contraction or possession. At other grade levels tested, use of the apostrophe for singular and plural possession was a skill weakness.

Colon to introduce formal series - Use of the colon to introduce a series where the parts are separated by semicolons represents a more advanced punctuation skill. DoDDS scope and sequence places the skill from grade 7 to grade 12.

Secondary schools, especially, may wish to establish a review of punctuation mechanics based upon scope and sequence.

Identify subject and predicate - Identification of a simple subject or simple predicate is a skill which is slightly below group performance expectation at grade 11. The skill is observed as a weakness at other grade levels. (Scope and sequence introduces the skill at grade 3). Knowledge of the terminology is traditionally linked to identifying complete and incomplete sentences, a skill tested at all grade levels. Grade 11 students performed at or above expectation on identifying complete and incomplete sentences; however, in most cases lower grade level students were not as successful.

Building and changing sentences is the overall skill to which the sub-skills of Sentence-subordinate ideas, Sentence-inverted word order, and Sentence-form an appositive belong. Group performance levels provide important information for advocates of expository writing experiences for high school students: a majority of grade 11 students demonstrate the ability to understand the conventions of the paragraph (topic sentence, subordinate detail, closing statement) but perform at a lower level on building and changing sentences (coordinating ideas, subordinating ideas, inverting word order, forming an appositive).

In other words, the majority of students need the application of writing skills in actual practice. Stress should be placed on sentence manipulation in class exercises to improve performance on building and changing sentences. "Students learn to write by writing."

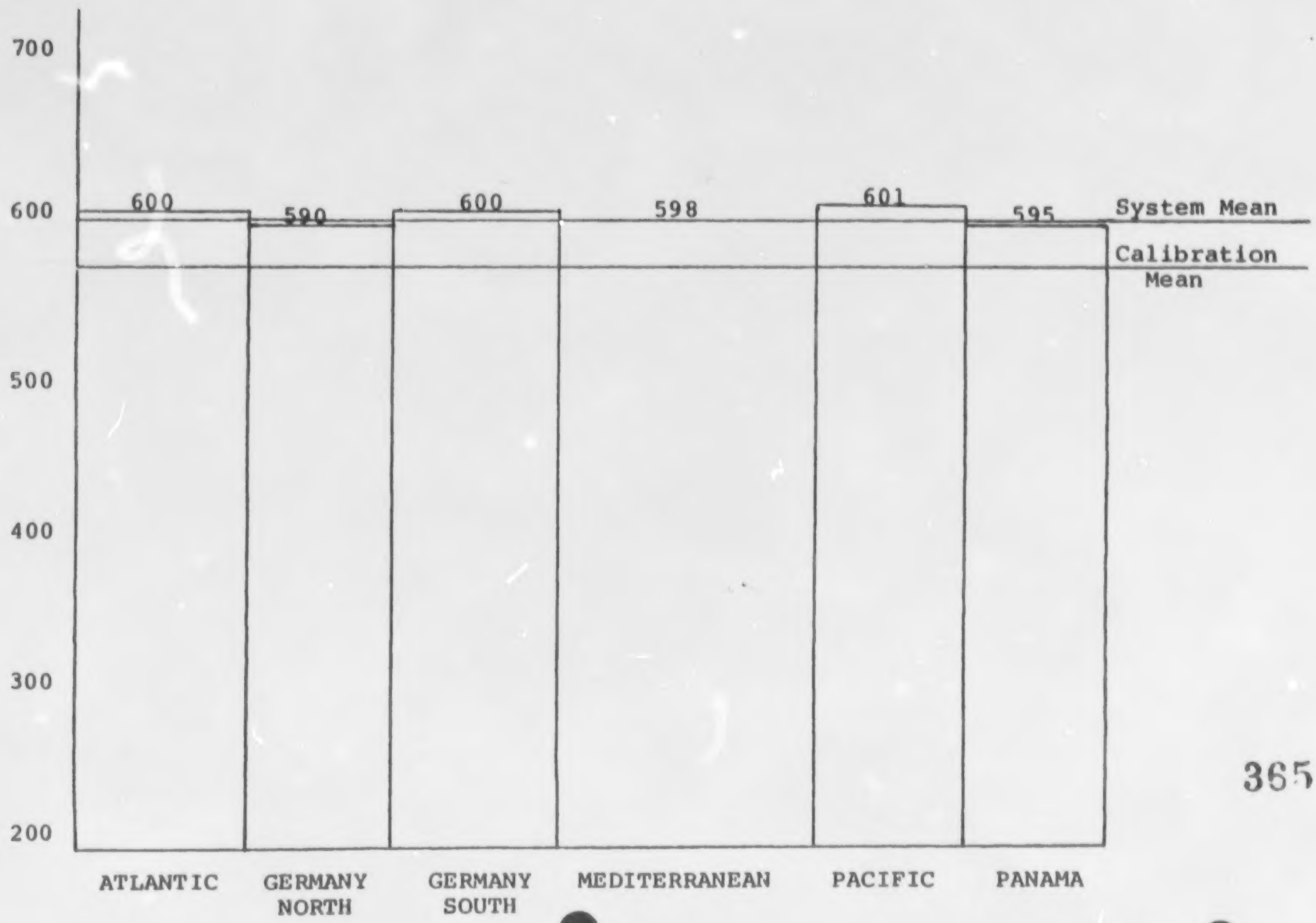
It is of interest that weak writing ability in a large number of incoming freshmen is the most recent (and recurring) complaint from U.S. colleges and universities.

Even where group performance levels were below 70%, the indication is that the sub-skill areas have been introduced and that with further instructional/learning experiences, the group performance levels will rise.

Figure 74 represents regional means in relation to DoDDS system and national calibration means. Regional coordinators may wish to apply a similar criterion for analysis, comparing regional findings with those discussed previously in this report.

FIGURE 74

LANGUAGE ARTS, GRADE 11 REGIONAL MEANS



Summary

During the school year 1979-80, DoDDS expanded the Basic Skills Assessment Program to test the language arts skills of 46,030 students in grades 3, 4, 6, 9, and 11. Only grades 9 and 11 had been tested in 1978-79.

Eight broad goal areas were identified by DoDDS scope and sequence as necessary to the overall development of effective language arts skills. These goal areas are as follows:

I. Punctuation
II. Capitalization
III. Usage
IV. Sentence Structure
V. Building and Changing Sentences
VI. Format for Correspondence
VII. Paragraph Development
VIII. Spelling

Subskills selected from each of the program goals define language arts performance relative to DoDDS instructional scope and sequence.

The performance of the students relative to each of the major goals is summarized below:

Goal I: Punctuation

Third grade pupils performed at expectation on the use of the period, question mark, and exclamation mark as end punctuation. DoDDS scope and sequence indicates introduction of this skill in grades 1 and 2: on the most difficult item, 70% of grade three pupils answered correctly; on the easiest item, 89% answered correctly. A strong instructional program is apparent.

Use of commas to separate city and state was tested as grades 3 and 4; comma to set-off the complimentary close of a letter was tested at grade 6; commas to set-off introductory phrases, appositives, interrupting elements, and parts of a compound sentence were tested at grades 6, 9, and 11. Students performed at or above expectation, and strength of performance increased at higher grade levels.

Use of the apostrophe to show contraction was tested at grade 4. High performance on the items to test this skill was indicated with grade 4 pupils answering correctly 90% and 87%, respectively. Use of the apostrophe to show singular and plural possession was tested with three items at grade 6 and one item at grade 9. Performance was below expectation on these items. Use of the apostrophe to form plurals was tested at grade 11. Forty-two percent of the students answered the item correctly.

Goal I: Punctuation continued

The identification of a direct quotation item required grade 6 pupils to select the statement which would need quotation marks. Group performance was at or above grade level expectation with 80% of the pupils answering correctly.

Use of the colon to introduce a formal series was tested at grade 11. Sixty-eight percent of the students answering correctly is considered at or above group expectation for this more advanced skill of punctuation.

Goal II: Capitalization

Capitalization skills which were selected for testing focused on those skills indicated in DoDDS scope and sequence for introduction by grade 4. Results show that the foundation skills in capitalization are appropriately introduced and group mastery levels from grades 3 and 4 are at or above expectation. Specific capitalization skills tested were for the first word of a sentence; pronoun "I"; initials; abbreviation in formal titles and addresses; names of cities, states and special places; and beginning lines of poems. Item 04 on the grade 3 test was a difficult item for that grade level because it required pupils to identify seven proper nouns in one sentence. Group performance of 44% answering correctly is considered at grade level for that age group.

Goal III: Usage of Language

Correct use of verb tense was tested at grades 3, 4, and 9. All grade levels showed strong group performance on the items, and a strong instructional program is apparent.

Subject-verb agreement is a more advanced skill than use of verb tense, but performance was successful. Skill items were included at all grade levels. The most difficult item was used at grade 11 and required the student to select a plural verb, "appeal", for a compound subject, "The president and secretary...." 68% of the eleventh graders answered the item correctly. On an easier item, 96% of the eleventh graders answered correctly.

Avoiding double negatives was tested at grade 4, 6, and 9. Strong performance levels are attested by 92% of fourth graders answering correctly; 84% of sixth graders; and 90% of ninth graders.

Pronoun usage skills were tested at all grade levels. For grades 6 and 9, additional instructional emphasis is recommended. The item which gave sixth graders trouble (73% were expected to answer correctly; 66% actually did answer correctly) required the pupil to select the pronoun "I" as the correct pronoun for the subject of a sentence. At grade 9, a difficult item was number 11, which required the student to choose "me" as the object of a preposition without grammatical terminology.

Goal III: Usage of Language continued

Using adjectives and adverbs correctly was tested at grades 4, 6, and 9. The appropriate use of adjective degree is introduced at grade 4 in DoDDS scope and sequence; however, item 18 on the grade 4 test and item 12 on the grade 9 test were difficult for the students. The grade 4 item required the pupil to distinguish when "more" is not needed or when "most" is not appropriate to compare two things. The grade 9 item required the student to choose "better" when comparing two things.

Goal IV: Sentence Structure

DoDDS scope and sequence introduces the skill of identifying the subject and predicate of a sentence at grade 3, and the curriculum design indicates sentence patterns are to be stressed from grades 6 through 12 (subject-verb-object, etc.); however, actual group performance on the skill of identifying the subject and predicate is somewhat below expectation, even though carefully stressed in scope and sequence. Twenty-nine percent of third graders and 27% of fourth graders responded correctly to identifying a subject and predicate, which indicates skill introduction at that level. Growth is shown at grade 9, where 64% of the students responded correctly.

Eighteen items were used to chart the skill of identifying complete, incomplete, and run-on sentences among the five grade levels tested. Steady growth is shown, although performance was slightly below group expectation at grade 4 and 6 in identifying incomplete sentences. At grade 6 the recognition of the run-on sentence was tested, as well, and group performance was below expectation. Growth in the skill of recognizing complete, incomplete, and run-on sentences is evidenced at grades 9 and 11. All items testing this skill show a group performance at or above grade level expectation.

Goal V: Building and Changing Sentences

Grade 4 and grade 6 pupils earned group mastery levels above 70% on the two items used at each grade level to test ability to combine simple sentences.

Grade 9 students answered three items dealing with coordinating ideas in a sentence (giving two ideas equal importance). On the easiest item, 88% of the grade 9 students answered correctly; however, on the two more difficult items performance was at a 44% and 11% group mastery level.

Grade 11 students answered two items in this goal area: one dealt with subordinating an idea in a sentence; the other dealt with inverting word order in a sentence. Performance was below expectation on both items with a 41% and 23% group mastery level, respectively.

Goal VI: Paragraph Development

Paragraph development was stressed at grade 9 and grade 11 with seventeen items. These items included selection of topic sentences, identification of the main idea, arrangement of subordinate detail, selection of a closing statement, identifying the pattern of development, and choosing a clear level of generalization. Performance indicated high levels of performance for both grades.

Goal VII: Format for Correspondence

Grade 4 and grade 6 pupils performed strongly on items dealing with the proper form for addressing an envelope and the proper form for the friendly letter.

Grade 9 students performed strongly on an item dealing with the business letter form; and grade 11 students performed strongly on an item which dealt with the appropriate level of discourse for a business letter.

Two items were not as successful for grade 11 students. These items dealt with the business letter form. One item required students to know the meaning of the term "salutation," and one item included the term "inside address" as a distractor. It is possible that more students recognize the correct form for a business letter but do not necessarily know the formal terminology. It is recommended that a different type of item be used to test this skill in the future.

Goal VIII: Spelling

A total of twenty-six items to test spelling skills was used for the five grade levels. Performance was at or above the range of grade level expectation on all items except one: grade 9 students were required to select the correct spelling for possession, a word which represents the spelling sub-skill of doubling consonants.

General recommendations for the language arts program are listed below:

1. Continue the successful sequence of instruction in capitalization skills. Foundation skills are strong at grades 3 and 4.
2. Continue the successful sequence of instruction in punctuation skills.
3. Give more emphasis to the apostrophe in singular and plural possession.
4. Continue the successful sequence of instruction in proper language usage for the subskills of verb tense, subject-verb agreement, and avoiding double negatives.

General recommendations for the language arts program continued

5. Provide additional emphasis to pronoun usage and adjective forms.

6. Continue the introduction of subject/predicate identification skills at grade 3 as recommended in DoDDS scope and sequence.

7. Stress the generation of original sentences and manipulation of sentence parts followed by a simple analysis for completeness at grades 4 through 6.

8. Continue the satisfactory instructional emphasis apparent at the secondary level in dealing with complete, incomplete, and run-on sentences.

9. Continue the emphasis at elementary levels on combining ideas into more mature sentences.

10. Increase the practice in sentence manipulation at the secondary levels.

11. Continue the emphasis on paragraph organization and detail. Results show students are well-prepared for expository writing experiences.

12. Continue the teaching of proper format for correspondence.

13. Continue the spelling instructional program at all grade levels.

Basic Skills Assessment Results for Mathematics

Introduction

During the school year 1979-80, DoDDS expanded the Basic Skills Assessment Program to test mathematics skills at grades 3, 5, 7, and 11. Only grades 7 and 11 had been tested in 1978-79. The mathematics skills of 36,632 students were analyzed by the methods described in the preceding section of this report.

Eight broad categories or domains of mathematics skills were identified by DoDDS scope and sequence as necessary to the overall development of effective mathematics skills. These categories or goals served as a framework for test construction. Program goals for mathematics development are listed below.

The student:

- Identifies the uniqueness of numbers, their meanings and relationship.
- Demonstrates proficiency with computational skills.
- Applies computational skills and mathematical reasoning in solving problems.
- Demonstrates the ability to collect, reduce, display, and interpret data into meaningful terms.
- Demonstrates the ability to perform measurement in both metric and customary terms using appropriate tools.
- Uses mathematical data and concepts to make predictions.
- Knows and applies geometric concepts.
- Develops an understanding of the capabilities, applications, limitations and implications of computer technology in our society.

Subskills selected from each of the program goals define mathematics performance relative to DoDDS instructional scope and sequence. Specific measurable skill objectives are listed for each grade level.

Figure 75 represents the range of difficulty on the Rasch continuum of selected DoDDS system skills which were measured in spring, 1980.

Mean scores across grade levels for mathematics are presented in Table 90. Cut scores used to determine percentages of students correctly answering 70% of the test items are summarized in Table 91. The Percentage of Students in Selected Quality of Measure Index range for basic skills mathematics tests is presented in Table 92.

Findings will be presented by grade level.

FIGURE 75

MATHEMATICS SKILLS CONTINUUM

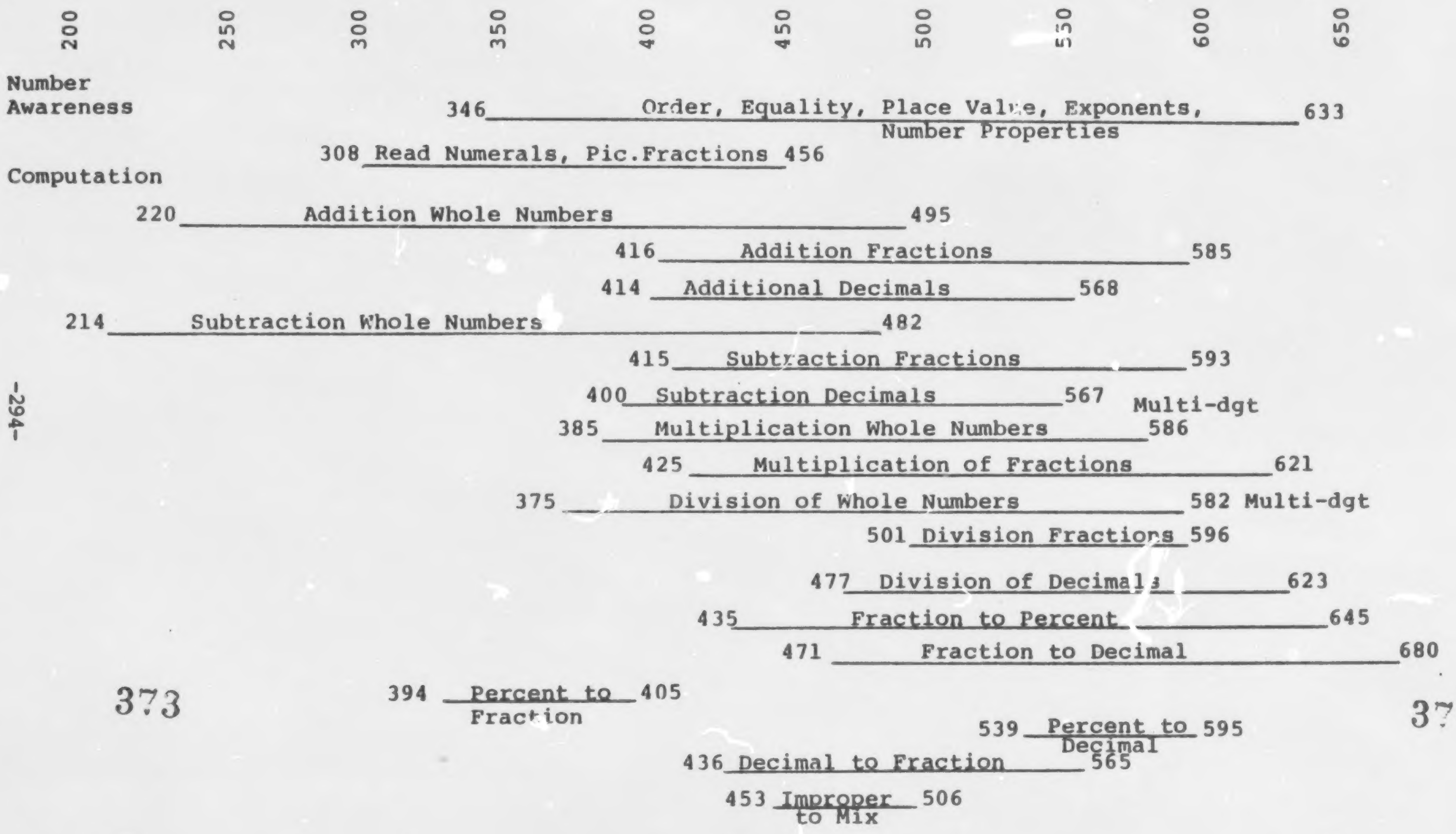


FIGURE 75 (cont'd.)

MATHEMATICS SKILLS CONTINUUM

250 300 350 400 450 500 550 600 650

Problem Solving	401	Tables, Graphs, Charts	605
	500	Geometric Formulas	615
	490	Multi-step Word Problems (x- -)	695
Data Collection	518	Mean, Median, Mode, Range	642
Measurement	400	Linear English	585
	425	Metric	462
	549	Square	600
	605	Cubic	668
	296	Tell Time	422
Predictions	511	Probability Odds	696
Geometry	300	Identify 1, 2, 3 Dimensional Forms	518
	360	Classify 2 Dimentional Forms	555
	479	Relationships Between Figures	659
Computer Literacy	498	Computer Know.	532

TABLE 90

Mean Scores Across Grade Levels for Mathematics

GRADE LEVEL	3	5	7	11
MEAN SCORE	447	514	583	619
NUMBER OF STUDENTS	13,249	10,723	7,728	4,935

TABLE 91

Cut Scores and Percentages of Students Correctly Answering 70% of the Mathematics Items

GRADE	3	5	7	11
CUT SCORE	442	522	578	602
PERCENT ANSWERING 70% OF THE ITEMS	57%	45%	55%	59%

TABLE 92

Percentage of Students in Selected Quality of Measurement Index Range for Basic Skills Mathematics Tests

GRADES	3	5	7	11
MEAN QMI	96	97	96	95
RANGE	59-100	65-100	58-100	59-100
QMI VALUE				
90-100	94.20	96.76	95.08	86.77
79-89	5.54	3.11	4.75	11.51
68-78	.23	.10	.15	1.28
44-67	.06	.03	.01	.40

Mathematics Test Findings, Curricular Implications and Recommendations

DoDDS Mathematics Objectives: Third Grade

The Pupil should be able to:

- .Read and write compact and expanded numerals through 1,000.
- .Manipulate objects/pictures to identify fractions (halves, fourths, thirds up to whole).
- .Compare numbers through 1,000 to determine equality or inequality.
- .Round whole numbers through 1,000 to nearest tens and hundreds.
- .Add and subtract 3 digit numerals with regrouping.
- .Add columns of numbers up through 3 digits.
- .Make change from $1.00.
- .Use commutative and associative principles in addition and multiplication.
- .Master multiplication facts 0 - 6.
- .Compute related division facts through 6 X 9.
- .Solve oral and written problems in addition and subtraction using numbers through 3 digits without and with regrouping.
- .Read and discuss bar and line graphs.
- .Tell time using clocks and calendars.
- .Measure the area of squares and rectangles using manipulative aids.
- .Complete a sequence of odd numbers and even numbers.
- .Identify and discuss the attributes of a parallelogram.
- .Describe how computers are used in their school and community.

Student Performance on Objectives

As shown in Table 93, for grade 3, a measure on scale of 442 is equivalent to answering 70% of the items correctly.

Approximately 57% of the third graders tested got 70% of the items correct.

Of the 30 test objectives, 16 were met by 70% or more of the pupils.

TABLE 93

Grade 3 Mathematics Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
22	Telling time	296	94	94	+0
18	Subtract 3 digit integers without regrouping	314	92	88	-4
29	Multiply single digit integers without regrouping	340	87	87	+0
*02	Read and write numerals	308	92	86	-6
24	Compute area in square units	350	85	85	+0
14	Add 3-digit integers with regrouping	368	80	80	+0
12	Add 2-digit integers with regrouping	370	79	80	+1
*21	Read bar and line graphs	402	68	78	+10
13	Add 3-digit integers with regrouping	376	77	78	+1
26	Identify 2-dimensional figures	384	75	75	+0
10	Mixed operations with money	387	74	74	+0
05	Arithmetic properties-order	391	72	73	+1
15	Subtract 2-digit integers with regrouping	389	73	73	+0
28	Divide 2-digit integer without remainder	389	73	73	+0
09	Add multi-digit integers with regrouping	397	70	71	+1
01	Place value	400	69	70	+1

*These items show a performance discrepancy at or above the 5% level and will be discussed on page 304 .

The second analysis, an intuitive one, identified those items which were passed by 70% of the examinees. These attained minimal skills have been listed in Table 93 along with the expected and observed performance percentages.

It is important to note that these skills have been identified empirically, based on student performance, and reflect program strengths.

TABLE 94

Grade 3 Mathematics Test Items with Group Performance Below the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
04	Pictorial representation of fractions	404	68	69	+1
20	Apply addition of integers	401	69	69	+0
25	Arithmetic properties-sequence	408	66	69	+3
17	Subtract 2-digit from 3-digit integer with regrouping	404	68	68	+0
19	Subtract money	404	67	67	+0
11	Arithmetic properties-commutative and associative	408	66	66	+0
16	Subtract 3-digit integers with regrouping	417	62	63	+1
23	Telling time	422	61	60	-1
06	Arithmetic properties-order	430	57	57	+0
27	Identify 2-dimensional figures	434	55	55	+0
07	Arithmetic properties-rounding	460	44	48	+4
03	Pictorial representation of fractions	456	46	46	+0
08	Arithmetic properties-rounding	460	44	44	+0
30	Computer knowledge	502	28	26	-2

Discussion

Application of addition of integers (Item 20) and Subtraction of integers with regrouping (Items 17 and 16) were passed by 69%, 68%, and 63% of pupils which, based on the difficulty of the items, was consistent with expectations.

Arithmetic properties-sequence, and commutative and associative (Items 25 and 11) were also passed by a similar number of pupils.

Identifying the fraction representing a region (Item 3) was responded to correctly by 46% of third graders, while Identifying the region represented by a fraction (Item 04) was passed by 69% of the pupils. Both were at or above expectation for their respective difficulties.

Rounding items (07 and 08) were answered correctly by 44% of the students. It is a difficult skill and will be more fully developed at subsequent grade levels.

Item 27 (Identifying 2-dimensional figures), which requires the pupil to identify a parallelogram, was answered correctly by 55% of the pupils. While this skill is placed at the third grade level in the DoDDS scope and sequence, it is not typically included as one of the basic core concepts in third grade mathematics textbooks.

Computer knowledge (Item 30) was passed by 26% of the students. If it is desired that students possess this knowledge, it must be given greater emphasis in the instructional program.

TABLE 95

Grade 3 Mathematics Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
02	Read and write numerals	308	92	86	-6
21	Read bar and line graphs	402	68	78	+10

Performance Discrepancies

Read and write numerals - An observed performance level of 86% exceeds DoDDS expectations. However, based on a deviation of 6%, additional instruction is necessary in order to increase the percentage of students performing as "expected."

Read bar and line graphs - Based on student ability, only 68% of third grade pupils were expected to respond correctly to this item. A deviation of 10% between the expected and observed performance is an indication that possibly teachers are placing a great deal of instructional emphasis on reading graphs.

Grade 3 Performance Summary

The findings reported in this section are based on spring tests results obtained from 13,248 grade 3 pupils. The mean Measure on Scale of 447 obtained by the DoDDS students was over one standard deviation above the mean obtained by a sample of grade 3 pupils during the initial calibration of the item banks. While only 16 out of 30 objectives were met by 70% or more of the students tested (Table 93), 22 of the 30 items on the test had calibrated difficulties in excess of the third grade mean.

Grade 3 pupils performed in accordance with their respective measure on scale in all but three items (Table 95). Discrepant performance at or above the 5% level was noted in reading graphs, where observed performance exceeded the expected percent correct.

Another discrepancy was noted in reading and writing numerals. However, the discrepancy is incidental to the overall group performance which is well above the 70% level.

Curricular Implications and Recommendations

Grade 3 overall performance on the mathematics test was satisfactory. Approximately 57% of the students responded correctly to 70% of the items.

Performance in addition with regrouping and subtraction of 2-digit integers requiring regrouping in the 1st column was very good. Additional instructional emphasis is required in extending regrouping in subtraction in the 1's and 10's columns in 3-digit integers.

Continued instructional emphasis is also recommended for the following subskills, since less than 70% of all third graders were able to answer these items correctly:

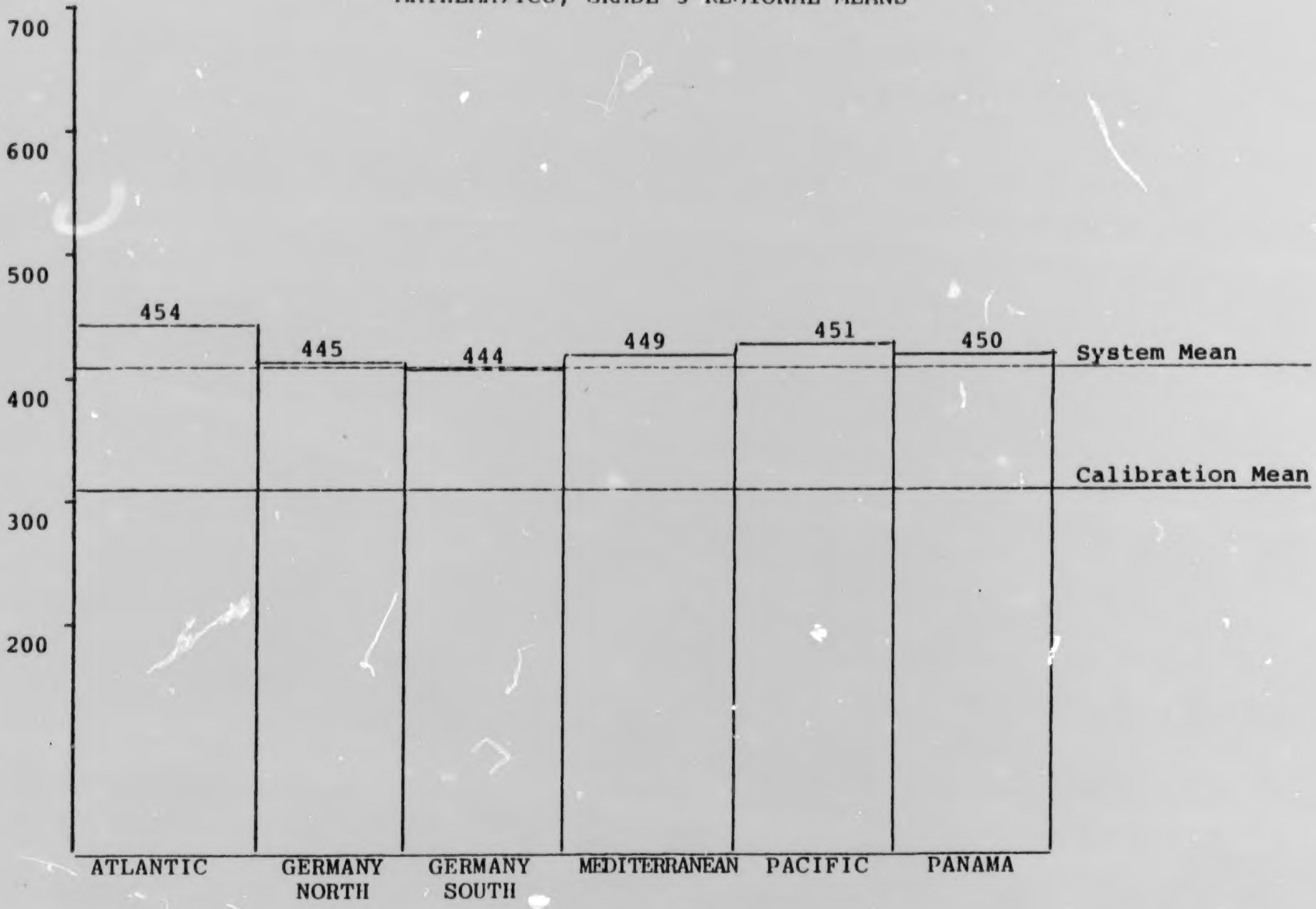
- Pictorial representation of fractions
- Application of addition of integers
- Arithmetic properties-sequence
- Subtraction of money
- Arithmetic properties-commutative and associative
- Telling time
- Arithmetic properties-order
- Identification of 2-dimensional figures
- Arithmetic properties-rounding
- Computer knowledge

Figure 76 represents regional means in relation to DoDDS system and national calibration means.

Regional coordinators may wish to apply a similar criterion for analysis, comparing regional findings with those discussed previously in this report.

FIGURE 76

MATHEMATICS, GRADE 3 REGIONAL MEANS



Mathematics Test Findings, Curricular Implications and Recommendations

DoDDS Mathematics Objectives: Fifth Grade

The pupil should be able to:

- identify the factors of numbers
- identify the common factors of a pair of numbers
- compare written fractions
- compare decimals
- multiply by 3 or more digits with regrouping
- divide by 2 digits without and with regrouping
- compute averages
- add and subtract decimals to ten-thousandths
- multiply decimals so that the product has no more than 4 places
- divide decimals by whole numbers
- change mixed numerals to improper fractions
- change improper fractions to mixed numerals
- solve word problems involving the four basic operations with whole numbers
- solve addition, subtraction, and multiplication problems involving decimals to ten-thousandths.
- solve word problems involving money, using the four basic operations
- interpret graphs and make inferences
- determine the perimeter of a polygon
- determine the area of squares and rectangles
- identify and name polygons having 4, 5, 6, and 8 sides
- use general terms to describe a computer system

Student Performance on Objectives

Approximately 45% of all fifth graders tested correctly answered 70% of the items (Table 96). Eleven of the 30 objectives represented on the test were met by 70% or more of the students.

TABLE 96

Grade 5 Mathematics Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
10	Add multi-digit integers with regrouping	391	91	90	-1
21	Multiply whole number by 1-place decimal	394	90	89	-1
26	Plane metric square measurement	396	90	89	-1
24	Successive operations-multiply integers	413	86	85	-1
*08	Multiply integers with regrouping	469	69	81	+12
20	Subtract decimals	436	80	79	-1
27	Relations between geometric figures	436	80	79	-1
11	Divide decimal by whole number	441	78	78	+0
07	Multiply integers without regrouping	439	79	76	-3
28	Apply addition of integers	447	77	76	-1
*15	Apply division of integers	470	68	73	+5

*These items show a performance discrepancy at or above the 5% level and will be discussed on page 311.

The second analysis, an intuitive one, identified those items which were passed by 70% of the examinees. These attained minimal skills have been listed in Table 96, along with the expected and observed performance percentages.

It is important to note that these skills have been identified empirically (based on student performance) and reflect program strengths.

TABLE 97

Grade 6 Mathematics Test Items with Group Performance Below the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
*29	Apply English plane square measurement	515	49	68	+19
*02	Greatest common factor	514	50	67	+17
06	Multiply integers with regrouping	472	67	66	-1
*22	Divide by 2 digits without remainder	469	69	63	-6
*12	Divide decimal by whole number	467	69	63	-6
*01	Factors of a number	526	44	63	+19
09	Compute averages	479	65	63	-2
18	Interpret graphs	480	64	63	-1
*17	Interpret graphs	460	72	61	-11
25	Identify geometric figures	484	62	61	-1
14	Convert improper fractions	494	59	57	-2
19	Interpret graphs	493	59	57	-2
16	Apply subtraction of money	506	53	51	-2
*23	Divide by 2 digits without remainder	492	59	50	-9
30	Computer knowledge	515	49	47	-2
13	Convert mixed number	535	41	39	-2
*04	Compare fractions	520	47	39	-8
05	Compare decimals	543	37	35	-2
03	Arithmetic properties-order/sequence	564	29	27	-2

*These items show a performance discrepancy at or above the 5% level and will be discussed on page 311.

Discussion

Multiply integers with regrouping - Sixty-six percent of fifth grade pupils correctly performed multiplying by a 3-digit integer (Item 06).

Compute averages - In responding to Item 09, 63% of all grade 5 students were able to compute the average of a set of integers.

Interpret graphs - Responses to Items 18 and 19 reveal that 63% and 57%, respectively, of the pupils were able to interpret and process information contained in a graph.

Identify geometric figure - Sixty-one percent of fifth graders could identify a six-sided polygon as a hexagon.

Convert improper fraction - Item 14 was answered correctly by 57% of the fifth grade students.

Apply subtraction of money - Item 16, which was answered correctly by 51% of the fifth graders, requires the dual operations of addition and subtraction of decimals (money) with points unaligned.

Computer knowledge - Forty-seven percent of DoDDS fifth graders were able to identify the use of the typewriter keyboard in a computer system. Care should be taken to insure that this information is included in specific instructional experiences dealing with knowledge of the computer.

Convert mixed number - The conversion of a mixed number to an improper fraction (Item 13) is one of the most difficult items at this grade level. It was answered correctly by 39% of DoDDS fifth grade pupils. Since this skill is the basis of further work with fractions, it will be reinforced and extended at subsequent grade levels.

Compare decimals - Responses to Item 04 indicate that 35% of DoDDS fifth graders were able to select the smallest decimal from a set of 4 decimals ranging from 0.001 to 1.1. Based on the difficulty of the item and the ability of the pupils, only 37% were expected to answer correctly.

Arithmetic properties-order/sequence - Item 03, with a calibrated difficulty of 564, requires a pupil to select the set in which the 4 fractions are arranged from smallest to largest. Based on the ability of the pupils, an item of this difficulty is expected to be passed by 29%. Twenty-seven percent of DoDDS fifth graders responded correctly.

TABLE 98

Grade 5 Mathematics Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
29	Apply English plane square measurement	515	49	69	+19
01	Factors of a number	526	44	63	+19
02	Greatest common factor	514	50	67	+17
08	Multiply integers with regrouping	469	69	81	+12
15	Apply division of integers	470	68	73	+5
22	Divide by 2 digits without remainder	469	69	63	-6
12	Divide decimal by whole number	467	69	63	-6
04	Compare fractions	520	47	39	-8
23	Divide by 2 digits without remainder	492	59	50	-9
17	Interpret graphs	460	72	61	-11

Performance Discrepancies

Apply English square measurement - Based on the difficulty of Item 29, only 49% of fifth grade students were expected to correctly answer the item. The 68% who achieved success exceeded expectation by 19%.

Factors of a number and greatest common factor - While 63% and 67%, respectively, of fifth grade pupils correctly responded to Items 1 and 2, this exceeded expectations by 19% and 17%.

Multiply integers with regrouping - Exceeding grade-level expectations, 81% of all fifth graders were able to multiply a 3-digit by a 2-digit integer with regrouping. Based on student ability, 69% were expected to respond correctly. A deviation of 12% between the expected and observed performance is an indication that possibly (1) teachers are placing a great deal of instructional emphasis on this skill, or (2) selected textbooks tend to reinforce this skill.

Apply division of integers - Fifth grade students are exceeding grade-level expectations in the application of division of integers in a word problem. With a 5% discrepancy between the expected 68% and the observed, 73% of the pupils answered Item 15 correctly.

Divide by 2 digits without remainder - On both Item 22 and 23, the number of fifth graders (63% and 50%, respectively) correctly dividing by 2 digits without a remainder was less than expected. Additional emphasis in the mathematics curriculum should be given to increase the number of pupils achieving success in this skill.

Divide decimal by whole number - The observed percent correct on Item 12 was 6 percentage points less than expected, indicating the need for further work in locating the decimal in the quotient in division.

Compare fractions - An 8% discrepancy was noted for Item 04. This suggests that additional instruction would enable more pupils to acquire this skill.

Interpret graphs - An 11% discrepancy was noted for Item 17. Approximately 72% of the students tested were expected (based on their ability) to answer this item correctly; however, only 61% of the students were able to respond correctly. Continued instructional emphasis at this grade level is indicated to maintain the above expected performance in this skill noted in grade 3.

Grade 5 Performance Summary

The findings reported in this section of the technical report are based on spring test results obtained from 10,723 grade 5 pupils. The mean Measure on Scale of 514 obtained by the DoDDS students was one standard deviation above the national calibration mean of 462. While 11 out of 30 objectives were met by 70% or more of the students tested (Table 96), 20 of the 30 items on the test had calibrated difficulties in excess of the national mean.

Grade 5 pupils performed in accordance with their respective ability (Measure on Scale) on all except 10 of the 30 objectives. Exceptionally high positive discrepancies were noted in applying English plane square measurement, and factors (including greatest common) of a number.

Other findings revealed that a small percentage of students with a Measure on Scale (ability) equal to or exceeding item difficulty for dividing by 2 digits, comparing fractions, and interpreting graphs were not answering these items correctly (Table 98).

Curricular Implications and Recommendations

Grade 5 overall performance on the basic skills mathematics test was satisfactory. Approximately 45% of the students responded correctly to 70% of the items.

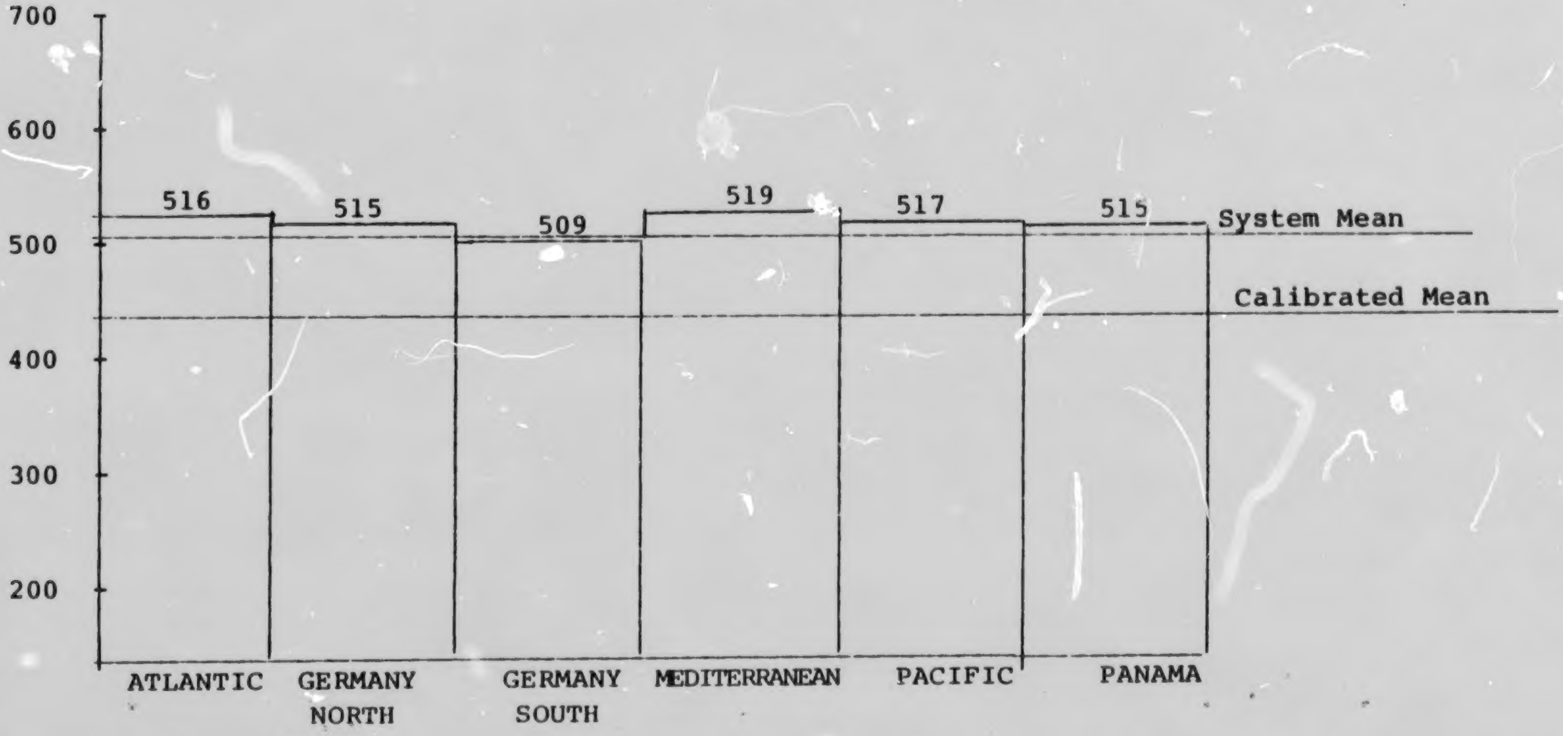
Continued instructional emphasis is recommended for the following subskills:

- .multiply integers with regrouping
- .divide by 2 digits without remainder
- .compute averages
- .divide decimal by whole number
- .interpret graphs
- .convert improper fractions
- .apply subtraction of money
- .computer knowledge
- .convert mixed number
- .compare fractions
- .compare decimals
- .arithmetic properties-order/sequence

Figure 77 represents regional means in relation to DoDDS system and national calibration means. Regional coordinators may wish to apply a similar criterion for analysis. comparing regional findings with those discussed previously in this report.

FIGURE 77

MATHEMATICS, GRADE 5 REGIONAL MEANS



Mathematics Test Findings, Curricular Implications and Recommendations

DoDDS Mathematics Objectives: Seventh Grade

The pupil should be able to:

- graph positive rational numbers
- recognize a terminating decimal as a fraction
- read and write numbers using exponential notations
- perform the four operations with whole numbers, decimals, and fractions
- change common fractions to decimal fractions and mixed numerals to mixed decimals
- change terminating decimal fractions to common fractions, and mixed decimals to mixed numerals
- demonstrate an understanding of the order of operations
- convert fractions and decimals to percents
- solve word problems with information displayed in tables, graphs and charts
- solve multi-step word problems using the four basic operations with whole numbers, decimals, and fractions
- read and interpret circle graphs
- identify "mean," "median," "mode," and "range"
- determine the circumference or perimeter and area of any regular plane geometric figure using formulas
- identify the probability of paired events
- recognize the name acute, right and obtuse angles
- identify user languages and explain how their names were derived.

Student Performance on Objectives

Fifty-five percent of seventh graders successfully answered 70% or more of the items on the test (Table 99). Of the 30 objectives on the test, 13 were met by 70% or more of the pupils.

TABLE 99

Grade 7 Mathematics Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
19	Measurement-standard units	410	96	96	+0
*13	Solve problems with information in tables, graphs, and charts	518	75	93	*+18
18	Convert fractions to decimals	459	90	90	+0
04	Subtract multi-digit integers with regrouping	460	89	89	+0
01	Add multi-digit integers with regrouping	480	85	87	+2
14	Solve problems with information in tables, graphs, and charts	483	85	86	+1
*06	Multiply whole numbers by mixed fractions-no renaming	462	89	80	-9
05	Multiply multi-digit integers with regrouping	490	83	78	-5
22	Convert fraction to equivalent	517	75	76	+1
*02	Subtract common fractions	555	61	75	+14
*03	Add decimals-points unaligned	494	82	75	-7
09	Convert percent to fraction	525	72	73	+1
29	Computer knowledge	532	70	70	+0

*These items show a performance discrepancy at or above the 5% level and will be discussed on page 320.

The second analysis, an intuitive one, identified those items which were passed by 70% of the examinees. These attained minimal skills have been listed in Table 99 along with the expected and observed performance percentages.

It is important to note that these skills have been identified empirically (based on student performance), and reflect program strengths.

TABLE 100

Grade 7 Mathematics Test Items with Group Performance Below the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
25	Exponential notation	536	68	69	+1
17	Convert fractions to decimals	543	66	67	+1
15	Identify angles	542	66	67	+1
10	Solve problems with information in tables, graphs, and charts	546	64	66	+1
*07	Divide by 2 digits with no remainder	510	77	65	-12
*08	Divide decimal by decimal	527	72	65	-7
23	Convert fractions, decimals, percents	553	62	63	+1
11	Metric plane linear measurement	556	61	62	+1
12	Compute averages	557	60	61	+1
21	Convert decimals to fractions	560	59	60	+1
24	Convert decimals to fractions	562	58	59	+1
30	Identify probability	564	57	58	+1
28	Use geometric formulas	576	52	53	+1
26	Use geometric formulas	590	47	48	+1
20	Convert decimals to fractions	593	45	46	+1
27	Use geometric formulas	601	42	43	+1
16	Order of operations	621	34	30	-4

*These items show a performance discrepancy at or above the 5% level and will be discussed on page 320.

TABLE 101

Grade 7 Mathematics Test Items with Group Performance Deviations At or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
13	Solve problems with information in tables, charts, and graphs	518	75	93	+18
02	Subtract common fractions	555	61	75	+14
03	Add decimals-points unaligned	494	82	75	-7
08	Divide decimal by decimal	527	72	65	-7
06	Multiply whole numbers by mixed fractions-no renaming	462	89	80	-9
07	Divide by 2-digit with no remainder	510	77	65	-12

Discussion

Exponential Notation - Sixty-nine percent (69%) of the seventh grade pupils answered Item 25 correctly.

Convert Fractions to Decimals - Sixty-seven percent (67%) of all grade 7 students were able to convert a fraction to a decimal (Item 17).

Identify Angles - Item 15, which required the student to select the figure most like an angle of 30 degrees, was answered correctly by 67% of seventh grade pupils.

Solve Problem with Information in Tables, Graphs, and Charts - This item required the pupil to perform a 2-step operation on information obtained from a table. While the 66% of seventh graders who responded correctly is less than the 70% level desired, it is within the expectation based on the item's difficulty and the ability of the pupils.

Convert Fractions, Decimals, Percents - Items 20, 21, 23, and 24, which required the pupil to make conversions among fractions, decimals, and percents, ranged in difficulty from 553 to 593 and were answered correctly by 46% to 63% of seventh grade students.

Metric Plane Linear Measurement - Grade 7 pupils performed as expected on Item 11 with 62% responding correctly.

Compute Averages - Additional instruction is indicated to enable the 3[illegible]% of seventh graders who failed Item 12 to respond correctly.

Identify Probability - This item (30) requires the pupil to select the probability of "guessing" the correct answer on a multiple choice test. Based on the ability of the pupils and calibrated difficulty of 564, the 58% of seventh grade pupils who responded correctly was within the expectation.

Use Geometric Formulas - Items 26, 27, and 28 required the students to use geometric formulas. They range in difficulty from 576 to 621, and represent the most difficult items on the test. The 43% to 53% of the seventh graders who passed these items do not differ from what was expected on the basis of pupil ability (measure on scale).

Order of Operations - With a calibration of 621, Item 16 is the most difficult on the test. It required the pupil to perform, in the correct order, three of the four operations in evaluating a numerical expression.

Grade 7 Performance Summary

The findings reported in this section of the technical report are based on spring test results obtained from 7,727 grade seven pupils. The mean Measure on Scale of 583 obtained by the DoDDS students was nearly one and a quarter standard deviation above the national calibration mean of 510.

While only 13 out of 30 objectives were met by 70% or more of the pupils tested (Table 99), 22 of the 30 items on the test had calibrated difficulties in excess of the national mean.

Grade 7 pupils performed in accordance with their respective ability (measure on scale) on all except the following objectives which showed a discrepancy at or above the 5% level:

- Solve problems with information in tables, charts, and graphs.
- Subtract common fractions.
- Add decimals - points unaligned.
- Divide decimal by decimal.
- Multiply whole numbers by mixed fractions - no renaming.
- Divide by 2-digit with no remainder.

An exceptionally high percentage of students performed successfully in solving problems with information in graphs, and subtracting common fractions. Other findings revealed that a small percentage of students with a measure on scale (ability) equal to or greater than item difficulty for adding and dividing decimals, multiplying whole numbers by mixed fractions, and dividing by 2-digit without remainder (Table 101).

Curricular Implications and Recommendations

Grade 7 overall performance on the basic skills reading test was satisfactory. Approximately 55% of the students responded correctly to 70% of the items.

Performance Discrepancies

Solve Problems with Information in Tables, Charts, and Graphs - Exceeding grade level expectations, 93% of all seventh graders were able to solve a problem using information in a graph (Item 13). Based on student ability, only 75% were expected to respond correctly. A positive deviation of 18 percentage points suggests that this skill has been well taught.

Subtract Common Fractions - With a calibrated difficulty of 555, it was expected that only 61% of the pupils would respond correctly. The 75% who actually did represent a positive discrepancy of 14 percent, and indicate good comprehension of this basic operation with fractions.

Add Decimals - Points Aligned - A 7% discrepancy was noted for Item 03. Eighty-two (82) percent of the students tested were expected (based on their ability) to answer this item correctly; however, only 75% of the students were able to do so.

Divide Decimal by Decimal - The performance discrepancy for Item 08 would suggest that an additional 7% of the seventh graders have the ability to successfully answer an item with a calibrated difficulty of 527. Therefore, the data suggest the need for additional instructional emphasis on the division of decimals.

Multiply Whole Numbers by Mixed Fractions--No Renaming - The overall performance of the seventh grade students on Item 06 fell 9 percentage points below the expected 89%.

Dividing by 2-Digits with No Remainder - Based on their ability, 77% of seventh graders were expected to respond correctly to Item 07. This negative discrepancy of 12 percentage points indicates a need for greater attention to this skill.

Continued instructional emphasis is recommended for the following subskills:

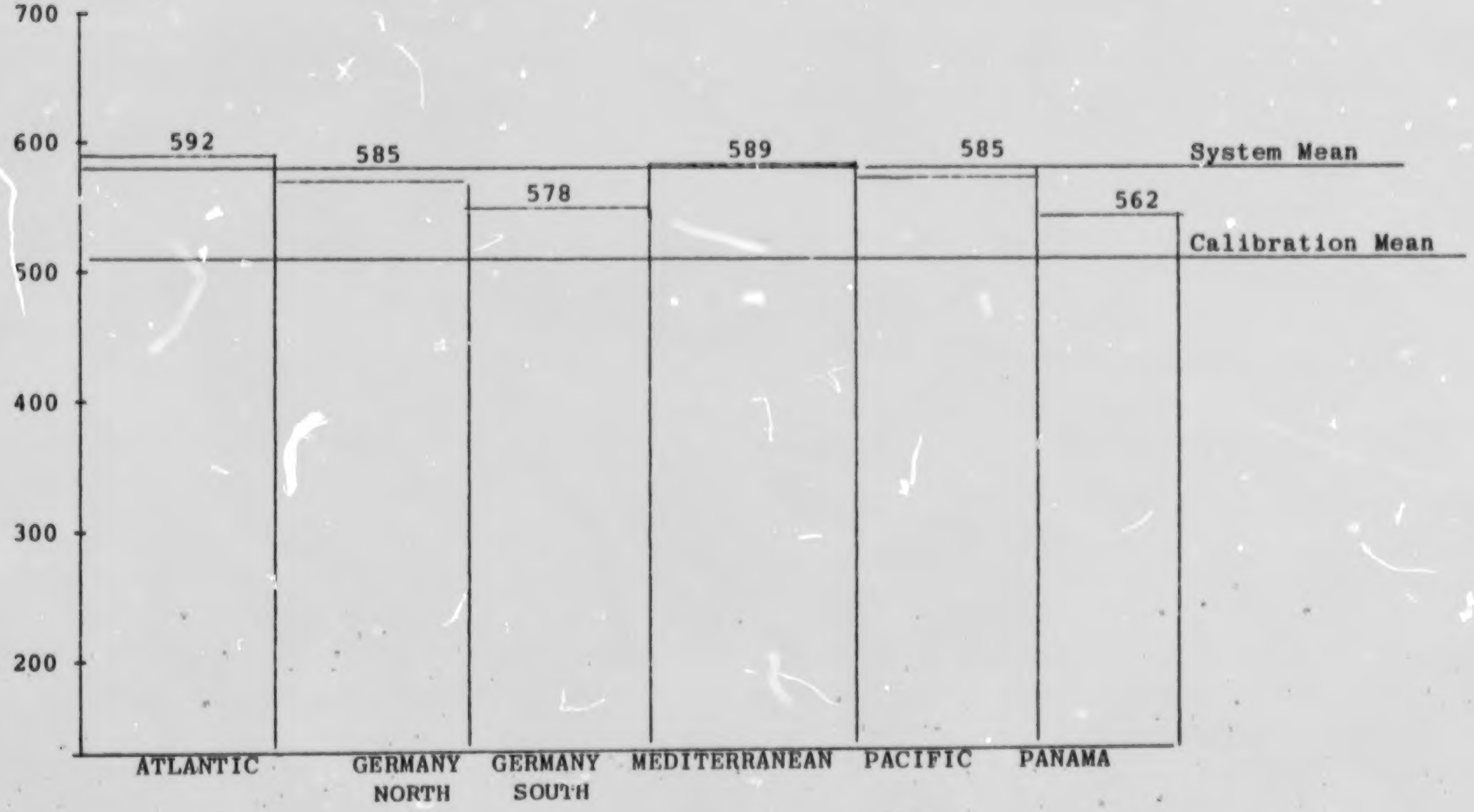
- exponential notation
- converting fractions to decimals
- identifying angles
- solving problems with information in tables, graphs, and charts
- dividing decimal by decimal
- converting fractions, decimals, and percents
- metric plane linear measurement
- computing averages
- converting decimals to fractions
- identifying probability
- using geometric formulas
- order of operations

Figure 78 represents regional means in relation to DoDDS system and national calibration means.

Regional coordinators may wish to apply a similar criterion for analysis, comparing regional findings with those discussed previously in this report.

FIGURE 78

MATHEMATICS, GRADE 7 REGIONAL MEANS



Mathematics Test Findings, Curricular Implications, and Recommendations

DoDDS Mathematics Objectives: Eleventh Grade

The pupil should be able to:

- .graph rational numbers on a number line
- .explain and illustrate the commutative, associative and distributive properties as they pertain to addition and multiplication of rational numbers
- .perform sequential operations and procedures with whole numbers, decimals, or fractions
- .solve proportions
- .solve word problems involving percents and proportions
- .solve problems involving the Pythagorean Theorem
- .use formulas to solve word problems
- .solve word problems having consumer and career application
- .analyze data graphically displayed
- .determine surface area of cylinders and rectangular prisms using formulas
- .determine volume of cylinders, pyramids, and cones using formulas
- .analyze information of mean, median, and/or mode
- .compare 3 and 4-sided polygons for congruency using relationships of sides and angles
- .discuss relationships among the angles formed when parallel lines are cut by a transversal

Student Performance on Objectives

Approximately 59% of all eleventh graders tested correctly answered 70% of the items (Table 91). Thirteen of the 30 objectives represented on the test were met by 70% or more of the students.

TABLE 102

Grade 11 Mathematics Test Items with Group Performance At or Above the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
03	Subtract multi-digit integers with regrouping	460	94	96	+2
25	Solve word problems with information in tables, graphs, and charts	452	95	95	+0
01	Add multi-digit integers with regrouping	495	89	93	+4
19	Apply multiplying money	469	93	93	+0
12	Algebra-solve 1-step equations	475	92	90	-2
*11	Algebra-solve 1-step equations	529	81	89	+8
13	Computer knowledge	498	88	88	+0
16	Apply mixed operations with time	503	87	87	+0
02	Subtract multi-digit integers with regrouping	479	91	87	-4
21	Solve consumer (domestic) word problems	529	81	81	+0
*07	Multiply multi-place decimals	586	62	74	+12
24	Solve word problems with information in tables, graphs, and charts	553	74	74	+0
14	Arithmetic properties-order/sequence	564	70	71	+1
28	Apply simple geometric formulas	564	70	71	+1
22	Apply simple geometric formulas	567	69	70	+1

*These items show a performance discrepancy above the 5% level and will be discussed on page 329.

The second analysis, an intuitive one, identifed those items which were passed by 70% of the examinees. These attained minimal skills have been listed in Table 102, along with the expected and observed performance percentages.

It is important to note that these skills have been identified empirically (based on student performance), and reflect program strengths.

TABLE 103

Grade 11 Mathematics Test Items with Group Performance Below the 70% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
09	Convert percent to fraction	569	69	69	+0
06	Divide mixed fraction by whole number	576	66	66	+0
18	Apply division of decimals	573	67	66	-1
29	Apply simple geometric formulas	579	65	66	+1
26	Identify angles	578	65	66	+1
10	Convert fraction to percent	581	64	64	+0
08	Convert decimals to fractions	588	62	62	+0
20	Apply percent-money	588	61	62	+1
*04	Add mixed fractions with unlike denominators	568	69	60	-9
17	Compute averages	597	58	57	-1
05	Multiply whole numbers by mixed fractions-no renaming	603	56	56	+0
27	Identify 2-dimensional figures	613	52	51	-1
15	Order of operations	639	42	40	-2
30	Solid metric square measurement	676	29	29	+0

*This item shows a performance discrepancy above the 5% level and will be discussed on page 329.

Discussion

Convert Percent to Fraction - This item requires the student to convert a percent to a fraction (reduced to lowest terms).

Divide Mixed Fraction by Whole Number - Grade 11 pupils performed as expected on Item 06 with 66% responding correctly.

Apply Division of Decimals - Item 18 required the pupil to solve a word problem involving the division of decimals. Two-thirds (66%) of the eleventh-graders responded correctly.

Apply Simple Geometric Formulas - Item 29, along with items 22 and 28 (whose performance levels were 70% or above) necessitated the application of a geometric formula to a problem situation. Sixty-six percent of eleventh-grade pupils responded correctly to this item.

Identify Angles - Sixty-six percent of all grade 11 pupils were able to identify the obtuse angle in a figure.

Convert Fraction to Percent and Decimal to Fraction - Items 08 and 10, involving conversions among fractions, decimals, and percents were passed by 62% and 64% of eleventh graders.

Apply Percent-Money - Sixty-two percent of the students were able to compute the sales tax on a purchase given the tax rate and the amount of the purchase.

Compute Averages - This item (17) requires an understanding of the concept of average, along with the skills of adding and dividing decimals. Opportunity for additional experiences with this type of exercise would serve to increase successful performance.

Multiple Whole Numbers by Mixed Fractions - No Renaming - Item 05 has a calibrated difficulty of 603 and is the fourth most difficult test item. Performing according to expectation (based on student ability), 56% of the eleventh graders tested responded correctly.

Identify 2-Dimensional Figures - Item 27 requires the student to identify an isosceles triangle. Considering the difficulty of the task (calibration of 613), the 51% who responded correctly is well within expectations based on overall pupil ability.

Order of Operations - With a calibration of 639, Item 15 is the second most difficult on the test. It required the pupil to perform in the correct order, the four operations in evaluating a numerical expression.

Solid Metric Square Measurement - This item (30) was the most difficult on the test and required the pupil to compute, without the aid of a formula, the surface area of a prism.

TABLE 104

Grade 11 Mathematics Test Items with Group Performance Deviations at or Above the 5% Level

Item No.	Skill Area/ Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
07	Multiply multi-place decimals	586	62	74	+12
11	Algebra-solve 1-step equations	529	81	89	+8
04	Add mixed fractions with unlike denominators	568	69	60	-9

Performance Discrepancies

Multiply multi-place decimals - Grade eleven students are exceeding expectations with this skill.

Algebra-solve 1-step equations - Eighty-nine percent of all eleventh graders were able to solve a simple algebraic equation. Based on the difficulty of the item, and the ability of the pupils, this represented a positive discrepancy of 8 percentage points.

Add mixed fractions with unlike denominators - A 9% negative discrepancy was noted for Item 04. Approximately 69% of the students tested were expected (based on their ability) to answer this item correctly; however, only 60% were able to do so. Continued instructional emphasis is recommended.

Grade 11 Performance Summary

The findings reported in this section of the technical report are based on spring test results obtained from 4,935 grade 11 pupils. The mean Measure on Scale of 619 obtained by the DoDDS students was over three-fourths of a standard deviation above the national calibration mean of 570. While 15 out of 30 objectives were met by 70% or more of the pupils tested (Table 102), 13 of the items on the test had calibrated difficulties in excess of the national mean.

Grade 11 pupils performed in accordance with their respective ability (Measure on Scale) on all except the following objectives which showed a discrepancy at or above the 5% level.

Multiply multi-place decimals
Algebra-solve 1-step equations
Add mixed fractions with unlike denominators

Curricular Implications and Recommendations

Grade 11 overall performance on the basic skills math test was satisfactory. Approximately 59% of the students responded correctly to 70% of the items.

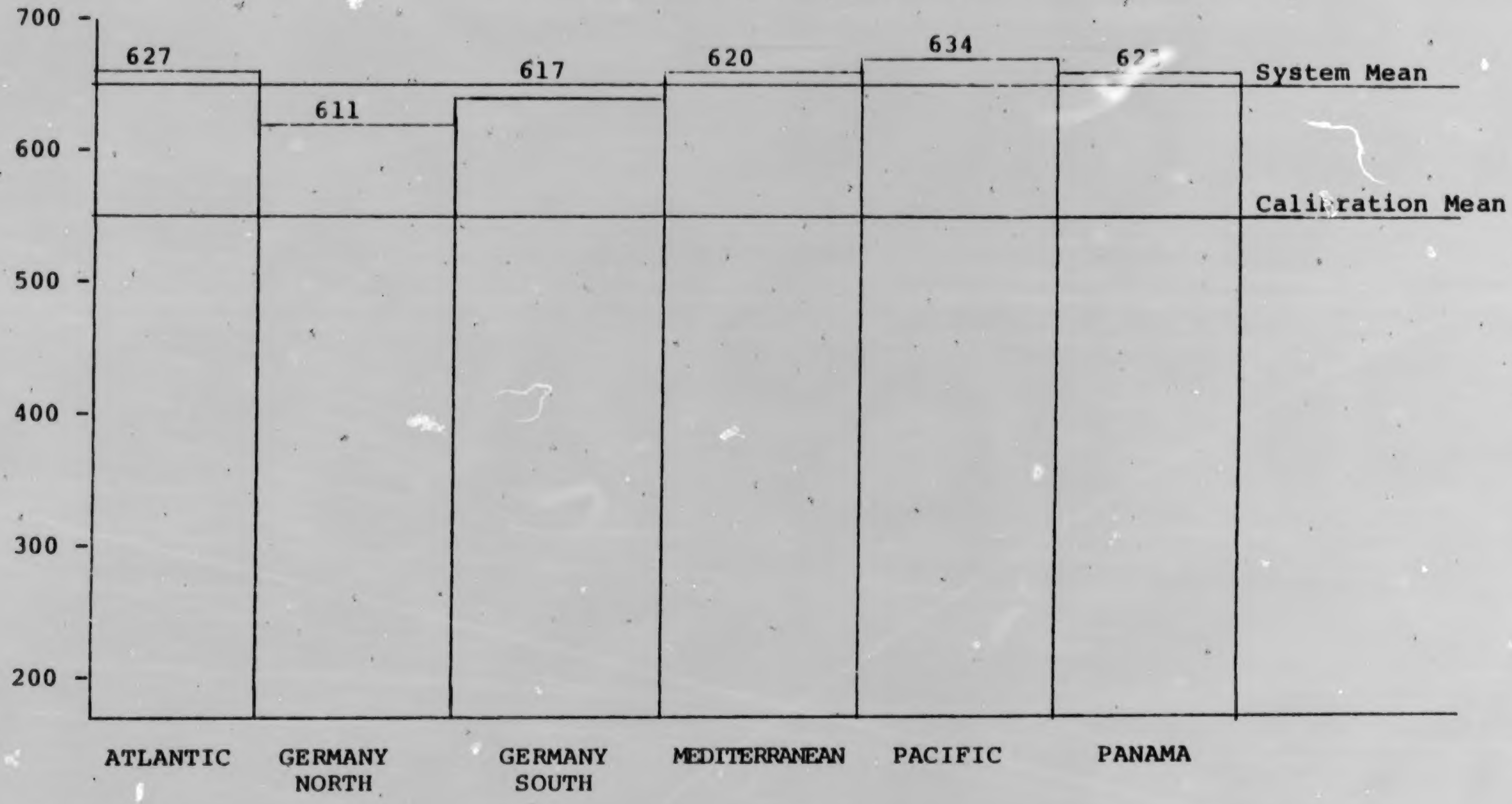
Continued instructional emphasis is recommended for the following subskills:

- .convert percent to fraction
- .divide mixed fraction by whole number
- .apply division of decimals
- .apply simple geometric formulas
- .identify angles
- .convert fraction to percent
- .apply percent-money
- .add mixed fractions with unlike denominators
- .compute averages
- .multiply whole numbers by mixed fractions-no renaming
- .identify 2-dimensional figures
- .order of operations
- .solid metric square measurement

Figure 79 represents regional means in relation to DoDDS system and national calibration means. Regional coordinators may wish to apply a similar criterion for analysis, comparing regional findings with those discussed previously in this report.

FIGURE 79

MATHEMATICS, GRADE 11 REGIONAL MEANS



Summary

During the school year 1979-80, DoDDS expanded the Basic Skills Assessment Program to test the mathematics skills of 36,632 students in grades 3, 5, 7, and 11.

Eight broad categories or domains of mathematics skills were identified by DoDDS scope and sequence as necessary to the overall development of effective mathematics skills. These categories or goals are as follows:

I.	Number Awareness
II.	Computational Skills
III.	Problem Solving
IV.	Data Collection
V.	Measurements
VI.	Predictions
VII.	Geometry
VIII.	Computer Literacy

Subskills selected from each of the program goals, along with the test items measuring these subskills, define mathematics performance relative to DoDDS instructional scope and sequence.

At each of the four grade levels (3, 5, 7, 11), 30 items were selected to measure the identified subskills on the average, 19 of the 30 items had difficulties greater than the grade level. The average number of students at the four grade levels passing 70% or more of the items on the test was 53.3%.

The performance of the students relative to each of the major goals is summarized below:

Goal I: Number Awareness

Third grade pupils demonstrated mastery of reading and writing numbers, (86%) place value of numbers, (70%) and comparing numbers to determine equality (73%). At grade 5, performance exceeded expectations (19% and 17%) in determining the factors of a number, and identifying the greatest common factor of a pair of numbers. In grades 7 and 11, continued development of number awareness resulted in mastery of exponential notation and the arithmetic property of order and sequence (70% and 71%).

Performance of fifth grade students was somewhat below expectation in comparison of fractions and decimals (39% and 35%).

Goal II: Computational Skills

Students in grade 3 mastered the addition of integers with regrouping (80%). The subtraction (88%) and multiplication (87%) of integers without regrouping, and the division of integers without remainders (73%) were also mastered by third graders.

In grades 5 and 7, students achieved mastery of subtraction (76%-89%) and multiplication of integers with regrouping, (78%-81%) and the addition, (75%) subtraction, (75%-79%) and multiplication, (80%-89%) of decimals and fractions.

With the exception of operations with fractions, (60%-69%) the mastery of skills from previous grade levels was maintained at grade 11.

The performance of students in grades 5, 7, and 11 on integers measuring division of integers, fractions, and decimals was somewhat lower than anticipated (50%-66%).

Goal III: Problem Solving

Students in grade 3 demonstrated mastery of written problems requiring the addition of integers (70%). At grade 5, mastery of applications of addition of decimals (76%) and division of integers (73%) was also attained.

In grade 7, students excelled in solving word problems with information displayed in graphs and tables (93%).

The performance of eleventh grade students revealed mastery of word problems involving the application of time, (87%) and the multiplication of money (93%).

Goal IV: Data Collections

With the exception of grade 5, (57%-63%) students demonstrated mastery of reading, interpreting, and analyzing data graphically displayed (78%-95%).

Goal V: Measurements

Third grade students demonstrated mastery of telling time (94%) and determining the number of square units in a rectangle (85%). At grade 5 students were able to determine the perimeter of a polygon (89%) and apply the concept of area of a rectangle. Eleventh graders applied the pythagorean theorem to solve a right triangle, (70%) and found the circumference of a circle given the radius and the appropriate formula (71%). They had some difficulty, however, finding the volume of a cylinder (66%) and the surface area of a prism (29%).

At the seventh grade level, pupils had difficulty with concepts of circumference of a circle, (48%) perimeter and area of a triangle, (43%) and volume of a prism (53%).

Goal VI: Predictions

Third grade pupils demonstrated mastery of completing a sequence of odd integers (70%). Eleventh graders were able to complete a sequence of the squares of the integers (71%).

Students in grade 7 had difficulty determining the probability of "guessing" the correct answer on a multiple choice test (58%).

Goal VII: Geometry

Students in grade 3 were able to identify a circle, square, rectangle, and triangle, (75%). They could not, however, recognize a parallelogram (55%).

Fifth grade pupils were able to select from among four figures the one having the greatest area (79%). They were not able to identify a six-sided polygon, (61%).

Seventh graders were unable to identify an angle of 30 degrees, (67%).

Eleventh grade students were unable to identify either an obtuse angle, (66%) or an isosceles triangle, (51%).

Goal VIII: Computer Literacy

Of the four grade levels tested, only the students in the upper two (grades 7 and 11) demonstrated adequate mastery (70% and 88%) of knowledge of computers.

General recommendations for the mathematics program are listed below:

1. Give additional instructional emphasis to comparison of fractions and decimals in grade 5.
2. Provide continued opportunity for reinforcement of operations with fractions for eleventh grade students.
3. Give added emphasis at grade 5 and above to the operation of division.
4. Give additional instructional emphasis to data collection skills at grade 5.

5. Provide additional attention to measurement skills at grade 7.
6. Increase the emphasis on geometric concepts at grades 5, 7, and 11.
7. Give greater emphasis on computer knowledge at grades 3 and 5.

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APPENDIX 1

TEST OBJECTIVES AND ITEM DIFFICULTIES FOR BASIC SKILLS ASSESSMENT TESTS

SPRING - 1980

TABLE A1-1
BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES
READING: GRADE 3

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	PHONETIC ANALYSIS-CONSONANTS	
01	SINGLE INITIAL CONSONANTS	403
02	SINGLE INITIAL CONSONANTS	429
03	SINGLE INITIAL CONSONANTS	418
04	VARIANT CONSONANTAL SOUNDS	449
	EVALUATIVE COMPREHENSION	
05	EVAL COMP-DISTINGUISH FANTASY & REALISM	459
	WORD RECOGNITION	
15	WORD RECOG.-BASIC SIGHT WORDS-DOLCH	388
06	WORD RECOG.-BASIC SIGHT WORDS-DOLCH	415
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS	
12	ROOT WORDS	539
07	PLUR NOUNS-INFLECTIONAL ENDINGS	538
13	SUFFIXES	516
	WORD MEANING	
08	WORD MEANING-CONTEXTUAL MEANING	406
22	WORD MEANING-CONTEXTUAL MEANING	487
	LITERAL COMPREHENSION	
09	LITERAL COMPREHENSION-SEQUENCE	479
26	LITERAL COMPREHENSION-DETAIL	518
25	LITERAL COMPREHENSION-DETAIL	509
14	LITERAL COMPREHENSION-MAIN IDEA	455
20	LITERAL COMPREHENSION-DETAIL	488
	INTERPRETIVE COMPREHENSION	
10	INTER COMP-IDENTIFYING OUTCOMES	423
21	INTER COMP-CAUSE AND EFFECT	501
19	INTER COMP-MAIN IDEA	500
	MULTIPLE WORD FORMS	
11	COMPOUND WORDS	470
	PHONETIC ANALYSIS-VOWELS	
18	SHORT VOWEL SOUNDS	511
16	SHORT VOWEL SOUNDS	520
17	LONG VOWEL SOUNDS	527
	DICTIONARY	
23	ALPHABETIZING	509
24	TABLE OF CONTENTS USE	434
26	$\bar{X}$ FORM DIFFICULTY	472

DIFFICULTY RANGE 388-527

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-2

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

READING: GRADE 4

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	PHONETIC ANALYSIS-CONSONANTS	
01	INITIAL CONSONANTAL DIGRAPHS	360
02	INITIAL DOUBLE CONSONANTAL BLENDS	496
	PHONETIC ANALYSIS-VOWELS	
04	VOWEL DIGRAPHS	531
03	VOWEL DIGRAPHS	544
	MULTIPLE WORD FORMS	
05	COMPOUND WORDS	426
07	CONTRACTIONS	478
08	CONTRACTIONS	489
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS	
06	ROOT WORDS	422
09	PREFIXES	393
	WORD MEANING	
13	WORD MEANING-CONTEXTUAL MEANING	427
10	WORD MEANING-CONTEXTUAL MEANING	462
	INTERPRETIVE COMPREHENSION	
11	INTERPRETIVE COMPREHENSION-MAIN IDEA	478
18	INTER COMP - CAUSE AND EFFECT	419
17	INTERPRETIVE COMPREHENSION-MAIN IDEA	469
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	415
	LITERAL COMPREHENSION	
15	LITERAL COMPREHENSION-SEQUENCE	447
16	LITERAL COMPREHENSION-DETAILS	511
12	LITERAL COMPREHENSION-DETAILS	449
	EVALUATIVE COMPREHENSION	
19	EVALUATIVE COM - DISTINGUISH FACT/ OPINION	508
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	462
24	EVAL COMP - IDENT PROB NEW USES RESEARCH	545
20	EVAL COMP - PREDICTIVE OUTCOMES	611
	DICTIONARY	
25	GUIDE WORDS	515
22	ALPHABETIZING	454
23	ALPHABETIZING	520
26	TABLE OF CONTENTS USE	434
27	GLOSSARY USE	477
27	$\overline{X}$ FORM DIFFICULTY	471.9

DIFFICULTY RANGE: 360-611

**Mean Rasch calibrated item difficulty: range 50-800

425

TABLE A1-3

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

READING: GRADE 6

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS	
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	437
02	PLURAL NOUNS-INFLECTIONAL ENDINGS	438
05	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	539
09	SUFFIXES	505
03	PREFIXES	487
	MULTIPLE WORD FORMS	
04	CONTRACTIONS	476
	WORD RECOGNITION	
06	WORD RECOGNITION-IRREGULAR VERBS	456
	DICTIONARY	
07	GUIDE WORDS	572
08	STUDY SKILLS-INTERPRET MAPS & DIAGRAMS	508
	WORD MEANING	
10	WORD MEANING-CONTEXTUAL MEANING	441
17	WORD MEANING-CONTEXTUAL MEANING	510
	LITERAL COMPREHENSION	
11	LITERAL COMPREHENSION-DETAILS	459
	INTERPRETIVE COMPREHENSION	
13	INTERPRETIVE COMPREHENSION-MAIN IDEA	523
22	INTER COMP - CAUSE AND EFFECT	615
15	INTERPRETIVE COMPREHENSION-MAIN IDEA	518
23	INTERPRETIVE COMP - INFERENCES, CONCLUSIONS	554
26	INTERPRETIVE COMP - IMAGERY/FIGURATIVE LANG	585
12	INTER COMP-INFERENCES, CONCLUSIONS	524
18	INTER COMP-RELATIONSHIP OF EVENTS	490
24	INTER COMP-COMPARE AND CONTRAST	533
19	INTER COMP-IDENTIFYING OUTCOMES	459
14	INTER COMP-RELATIONSHIP OF EVENTS	534
	EVALUATIVE COMPREHENSION	
20	EVAL COMP-PREDICTIVE OUTCOMES	533
25	EVAL COMP-IDENTIFY AUTHORS PURPOSE	496
21	EVAL COMP-COMPAR GENERALIZE SUMMARIZE	590
16	EVAL COMP-DISTINGUISH FACT/OPINION	544
26	$\bar{X}$ FORM DIFFICULTY	512.53
	RANGE 437-615	

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-4

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

READING: GRADE 9

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS	
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	665
02	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	603
03	SUFFIXES	565
	WORD MEANING	
04	WORD MEANING-ANTONYMS	557
05	WORD MEANING-CONTEXTUAL MEANING	596
	DICTIONARY	
07	STUDY SKILL-MEANING APPROP.TO CONTENT	554
08	PRONUNCIATION KEY	605
09	GUIDE WORDS	572
06	PRONUNCIATION KEY	542
11	STUDY SKILLS-USE OF REFERENCE MATERIALS	491
10	STUDY SKILLS-INDEX USE	489
12	STUDY SKILLS-USE OF REFERENCE MATERIALS	488
13	STUDY SKILLS-INTERPRET MAPS & DIAGRAMS	508
16	STUDY SKILLS-INTERPRET MAPS & DIAGRAMS	564
15	STUDY SKILLS-INTERPRET MAPS & DIAGRAMS	570
	INTERPRETIVE COMPREHENSION	
23	INTER. COMP.-POINT OF VIEW	554
26	INTER. COMP.-IMAGERY/FIGURATIVE LANG.	571
25	INTER. COMP.-IMAGERY/FIGURATIVE LANG.	578
22	INTER. COMP.-IDENTIFY MOOD/TONE	574
27	INTER. COMP.-IMAGERY/FIGURATIVE LANG.	647
29	INTER. COMP.-IMAGERY/FIGURATIVE LANG.	585
20	INTER. COMP.-COMPARE AND CONTRAST	533
14	INTER. COMP.-MAIN IDEA	562
28	INTER. COMP.-IMAGERY/FIGURATIVE LANG.	592
18	INTER. COMP.-CAUSE AND EFFECT	615
17	INTER. COMP.-TRAITS/MOTIVES/EMOTIONS	640
	EVALUATIVE COMPREHENSION	
24	EVAL. COMP.-IDENTIFY PROPAGANDA/BIAS	621
21	EVAL. COMP.-COMPAR GENERALIZE SUMMARIZE	590
19	EVAL. COMP.-STYLES TECHNIQUES AND FORMS	599
29	$\bar{X}$ FORM DIFFICULTIES Range 488-665	573.4

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-5

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

READING: GRADE 11

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
02	STUDY SKILLS - INDEX USE	523
01	REFERENCING AUTHORS	514
03	STUDY SKILLS-INTERPRET MAPS & DIAGRAMS	508
04	STUDY SKILLS-INTERPRET MAPS & DIAGRAMS	654
	INTERPRETIVE COMPREHENSION	
15	INTER.COMP.-POINT OF VIEW	554
07	INTER.COMP.-SUBORD. DETAIL	488
21	INTER.COMP.-IMAGERY/FIGURATIVE LANG.	621
23	INTER.COMP.-IMAGERY/FIGURATIVE LANG.	516
08	INTER.COMP.-CAUSE AND EFFECT	590
11	INTER.COMP.-TRAITS/MOTIVES/EMOTIONS	553
22	INTER.COMP.-IMAGERY/FIGURATIVE LANG.	578
12	INTER.COMP.-TRAITS/MOTIVES/EMOTIONS	540
26	INTER.COMP.-IMAGERY/FIGURATIVE LANG.	572
05	INTER.COMP.-MAIN IDEA	550
09	INTER.COMP.-COMPARE AND CONTRAST	512
	EVALUATIVE COMPREHENSION	
17	EVAL. COMP.-IDENTIFY PROPAGANDA/BIAS	637
06	EVAL. COMP.-IDENT PROB NEW USES RESEARCH	633
24	EVAL. COMP.-STYLES TECHNIQUES & FORMS	631
25	EVAL. COMP.-COMPAR GENERALIZE SUMMARIZE	538
10	EVAL. COMP.-PREDICTIVE OUTCOMES	533
16	EVAL. COMP.-DISTINGUISH FACT/OPINION	637
13	EVAL. COMP.-COMPAR GENERALIZE SUMMARIZE	563
14	EVAL. COMP.-JUDGE VALIDITY OF CONCLUSION	593
	WORD MEANING	
19	WORD MEANING-CONTEXTUAL MEANING	506
20	WORD MEANING-LITERAL MEANING	502
18	WORD MEANING-CONTEXTUAL MEANING	596
26	$\overline{X}$ FORM DIFFICULTY	563
	RANGE 488-654	

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-6

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

LANGUAGE ARTS: GRADE 3

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	CAPITALIZATION	
03	CAPITAL. - PRONOUN "I"	343
04	CAPITAL. - PROPER NOUNS	500
01	CAPITAL. - SENTENCE BEGINNING	342
06	CAPITAL. - PROPER NOUNS	396
13	CAPITAL. - ABBREVIATIONS	399
02	CAPITAL. - PROPER NOUNS	338
05	CAPITAL. - INITIALS	452
	PUNCTUATION	
12	PUNCTUATION-USE OF COMMAS	507
11	PUNCTUATION-USE OF COMMAS	471
10	PUNCTUATION-USE OF EXCLAMATION MARK	436
07	PUNCTUATION-USE OF PERIOD	361
08	PUNCTUATION-USE OF QUESTION MARK	416
09	PUNCTUATION-USE OF QUESTION MARK	376
	USAGE	
16	USAGE-SUBJECT VERB AGREEMENT	445
14	USAGE-VERB TENSE	361
17	USAGE-PRONOUN CASE	341
18	USAGE-PRONOUN AGREEMENT	400
15	USAGE-SUBJECT VERB AGREEMENT	515
	SENTENCE PATTERN	
19	SENT. PATTERNS-SUBJECT & PREDICATE	550
	SENTENCE STRUCTURES	
20	SENT. STRUCTURE-COMPLETE/INCOMPLETE	439
22	SENT. STRUCTURE-COMPLETE/INCOMPLETE	474
23	SENT. STRUCTURE-COMPLETE/INCOMPLETE	422
21	SENT. STRUCTURE-COMPLETE/INCOMPLETE	460
24	SENT. STRUCTURE-COMPLETE/INCOMPLETE	420
	WORD FORMS	
25	FORM CLASS WORDS (N.V.ADV.ADJ. ARTICLES)	355
	SPELLING	
31	SPELLING-UNCOMMON VOWEL UNIT	354
32	SPELLING-CONSONANT DBLING MORE THAN I SYLL	357
29	SPELLING-AGENT NOUN SUFFIX	387
30	SPELL-WORD W/SHORT VOWEL DIGRAPH	366
26	SPELLING-SCHWA SOUND	343
27	SPELL-WORD W/SHORT VOWEL IN MID. OF SYLL	379
28	SPELL-WORD W/SHORT VOWEL IN MID. OF SYLL	359
32	$\overline{X}$ FORM DIFFICULTY	392

DIFFICULTY RANGE 341-550

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-7

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

LANGUAGE ARTS: GRADE 4

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	CAPITALIZATION	
02	CAPITAL. - PROPER NOUNS	556
01	CAPITALIZATION	483
03	CAPITAL. - PRONOUN "I"	429
	PUNCTUATION	
09	PUNCT. - USE OF APOSTROPHES	592
05	PUNCT. - USE OF COMMAS	556
06	PUNCT. - USE OF APOSTROPHES	409
07	PUNCT. - USE OF APOSTROPHES	390
04	PUNCT. - USE OF COMMAS	577
08	PUNCT. - USE OF APOSTROPHES	483
	USAGE	
18	USAGE-COMPARATIVES & SUPERLATIVES	536
12	USAGE-VERB TENSE	368
10	USAGE-VERB TENSE	387
13	USAGE-SUBJECT VERB AGREEMENT	461
17	USAGE-PRONOUN CASE	406
11	USAGE-VERB TENSE	389
15	USAGE-SUBJECT VERB AGREEMENT	571
16	USAGE-DOUBLE NEGATIVES	420
14	USAGE-SUBJECT VERB AGREEMENT	514
	SENTENCE PATTERNS	
19	SENT.PATTERNS-SUBJECT & PREDICATE	550
	SENTENCE STRUCTURE	
20	SENT.STRUCT.-COMPLETE/INCOMPLETE	459
21	SENT.STRUCT.-COMPLETE/INCOMPLETE	460
22	SENT.STRUCT.-COMPLETE/INCOMPLETE	462
23	SENT.STRUCT.-COMPLETE/INCOMPLETE	493
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE	
24	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LTTRS	464
	BUILDING AND CHANGING SENTENCES	
25	BUILD/CHANGE SENT.-COMPOUNDING	438
26	BUILD/CHANGE SENT.-COMPOUNDING	444
	SPELLING	
28	SPELL-WORD W/SHORT VOWEL DIGRAPH	360
31	SPELL-WORD W/SHORT VOWEL DIGRAPH	371
29	SPELL-WORD W/SHORT VOWEL IN MID.OF SYLL.	422
27	SPELL-WORD W/SHORT VOWEL DIGRAPH	385
30	SPELL-WORD W/SHORT VOWEL IN MID.OF SYLL.	390
32	SPELL-WORD W/SHORT VOWEL IN MID.OF SYLL.	403
32	$\bar{X}$ FORM DIFFICULTY	457.1

RANGE 360-592

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-8

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

LANGUAGE ARTS: GRADE 6

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	PUNCTUATION	
07	PUNCT.-USE OF APOSTROPHES	575
05	PUNCT.-USE OF APOSTROPHES	527
06	PUNCT.-USE OF APOSTROPHES	535
03	PUNCT.-USE OF COMMAS	499
02	PUNCT.-USE OF QUOTATION MARKS	500
04	PUNCT.-USE OF COMMAS	538
01	PUNCT.-USE OF QUOTATION MARKS	512
	DIVISION OF WORD FORMS	
08	WORD DIV.-SYLLABICATION	455
	USAGE	
14	USAGE-PRONOUN CASE	501
09	USAGE-SUBJECT VERB AGREEMENT	556
15	USAGE-COMPARATIVES & SUPERLATIVES	498
10	USAGE-SUBJECT VERB AGREEMENT	450
11	USAGE-DOUBLE NEGATIVES	468
12	USAGE-PRONOUN CASE	506
13	USAGE-ADVERB/ADJECTIVE CONSTRUCTIONS	524
	SENTENCE STRUCTURE	
16	SENT.STRUCT.-COMPLETE/INCOMPLETE	581
18	SENT.STRUCT.-COMPLETE/INCOMPLETE	461
17	SENT.STRUCT.-COMPLETE/INCOMPLETE	439
19	SENT.STRUCT.-COMPLETE/INCOMPLETE	545
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE	
20	PRACT/INFORM DSCRS-FRIENDLY NOTES/LETTERS	464
21	PRACT/INFORM DSCRS-FRIENDLY NOTES/LETTERS	477
22	PRACT/INFORM DSCRS-FRIENDLY NOTES/LETTERS	462
	BUILDING AND CHANGING SENTENCES	
23	BUILD/CHANGE SENT.-COMPOUNDING	469
24	BUILD/CHANGE SENT.-COMPOUNDING	444
	SPELLING	
25	SPELLING-END LONG VOWEL	379
26	SPELL-WORD W/SHORT VOWEL DIGRAPH	391
28	SPELLING-END LONG VOWEL	510
29	SPELL-FREQ MISSPELL WORD DUE TO MISPRON	495
27	SPELL-FREW MISSPELL WORD DUE TO MISPRON	423
29	$\overline{X}$ FORM DIFFICULTIES	489.10

Range 379-581

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-9

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

LANGUAGE ARTS: GRADE 9

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	PUNCTUATION	
05	PUNCT. - USE OF APOSTROPHES	575
02	PUNCT. - USE OF COMMAS	466
06	PUNCT. - USE OF THE COLON	570
03	PUNCT. - USE OF COMMAS	539
04	PUNCT. - USE OF COMMAS	570
01	PUNCT. - USE OF COMMAS	538
	USAGE	
12	USAGE-COMPARATIVES & SUPERLATIVES	600
10	USAGE-DOUBLE NEGATIVES	457
07	USAGE-VERB TENSE	466
11	USAGE-PRONOUN CASE	596
08	USAGE-SUBJECT VERB AGREEMENT	488
09	USAGE-SUBJECT VERB AGREEMENT	513
	SENTENCE PATTERNS	
13	SENT.PATTERNS-SUBJECT & PREDICATE	567
	SENTENCE STRUCTURE	
14	SENT.STRUCT.-COMPLETE/INCOMPLETE	450
15	SENT.STRUCT.-COMPLETE/INCOMPLETE	461
16	SENT.STRUCT.-COMPLETE/INCOMPLETE	[illegible]4
17	SENT.STRUCT.-COMPLETE/INCOMPLETE	[illegible]68
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE	
18	BUSINESS LETTER	512
	BUILDING AND CHANGING SENTENCES	
20	BUILD/CHANGE SENT.-COORDINATION	564
22	BUILD/CHANGE SENT.-SUBORDINATION	593
21	BUILD/CHANGE SENT.-COORDINATION	683
19	BUILD/CHANGE SENT.-COORDINATION	487
	PARAGRAPH DEVELOPMENT	
27	PARA.DEVELOP.-SUBORDINATE DETAIL	504
28	PARA.DEVELOP.-SUBORDINATE DETAIL	515
23	PARAGRAPH MAIN IDEA	479
24	PARAGRAPH MAIN IDEA	475
25	PARAGRAPH MAIN IDEA	545
26	PARA.DEVELOP.-TOPIC SENTENCE	595
	SPELLING	
30	SPELL-CONSONANT DBLING MORE THAN 1 SYLL.	400
31	SPELL-WORD W/SHORT VOWEL DIGRAPH	424
29	SPELL-END LONG VOWEL	379
32	SPELL-LONG MID-SYL VOWEL-MARKER E PTTRN	469
33	SPELL-FREQ MISSPELL WORD DUE TO MISPRON.	520
33	$\overline{X}$ FORM DIFFICULTY	518

RANGE 379-683

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-10

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

LANGUAGE ARTS: GRADE 11

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	WORD FORMS	
01	POSSESSIVE FORMS	616
	PUNCTUATION	
02	PUNCT.-USE OF COMMAS	520
03	PUNCT.-USE OF COLON	570
	SENTENCE PATTERN	
04	SENT.PATTRN-SUBJECT & PREDICATE	620
	USAGE	
06	USAGE-PRONOUNCE CASE	466
05	USAGE-SUBJECT VERB AGREEMENT	424
07	USAGE-SUBJECT VERB AGREEMENT	560
	SENTENCE STRUCTURE	
10	SENT.STRUCT.-COMPLETE/INCOMPLETE	524
09	SENT.STRUCT.-COMPLETE/INCOMPLETE	564
08	SENT.STRUCT.-COMPLETE/INCOMPLETE	537
	DOMAINS OF DISCOURSE/PRACTICAL/INFORMATIVE	
12	PRACT./INFRM DSCRS-FRIENDLY NOTES/LETTERS	550
11	BUSINESS LETTER	556
16	BUSINESS LETTER	489
	BUILDING AND CHANGING SENTENCES	
14	BUILD/CHANGE SENT.-INVERTED ORDER	629
15	BUILD/CHANGE SENT.-SUBORDINATION	595
13	BUILD/CHANGE SENT.-EMBEDDING (APPOSIT)	621
	LEVEL OF GENERALIZATION	
17	LEVEL OF GENERALIZATION	592
18	LEVEL OF GENERALIZATION	546
	PARAGRAPH DEVELOPMENT	
22	PARA.DEVELOP.-SUBORDINATE DETAIL	484
24	PATTERNS OF PARAGRAPH DEVELOPMENT	509
26	PARA.DEVELOP.-CLOSING STATEMENT	512
27	PARA.DEVELOP.-CLOSING STATEMENT	502
20	PARA.DEVELOP.-SUBORDINATE DETAIL	572
25	PARA.DEVELOP.-TOPIC SENTENCE	510
21	PARA.DEVELOP.-TOPIC SENTENCE	579
23	PATTERNS OF PARAGRAPH DEVELOPMENT	559
19	PARAGRAPH MAIN IDEA	531
	SPELLING	
29	SPELLING-CONSONANT UNITS	455
30	SPELLING-CONS.DBLING MORE THAN 1 SYLL.	443
32	SPELLING-UNCOMMON VOWEL UNIT	427
31	SPELLING-CONSONANT UNITS	428
28	SPELLING-PREFIXES	485
$\overline{32}$	$\bar{X}$ FORM DIFFICULTY	$\overline{530}$.7

RANGE 424-629

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-11

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

MATHEMATICS: GRADE 3

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	COMPREHENSION-ARITHMETIC PROPERTIES	
06	COMPREHENSION-ORDER	430
08	COMPREHENSION-ROUNDING	460
11	COMP.PROP OF DISTRIB COMMUT ASSOC CLOSURE	408
05	COMPREHENSION-ORDER	391
01	COMPREHENSION-PLACE VALUE	400
07	COMPREHENSION-ROUNDING	460
	COMPREHENSION-READ & WRITE NUMERALS	
02	COMPR.READ/WRITE NUMERALS-ARABIC	308
	COMPREHEND PICTORIAL REPRESENTATION	
03	COMPR.PIC REPRESENTATION OF FRACTIONS	456
04	COMPR.PIC REPRESENTATION OF FRACTIONS	404
	ARITHMETIC COMPUTATION	
18	SUBTRACT TRIPLE DIGIT INTEGERS WO REGROUP	314
15	SUBTRACT 2-DGT INTEGERS W/REGROUPING	389
17	SUBTRACT 2-DGT FROM 3-DGT W/REGROUPING	404
14	ADD TRIPLE DGT INTEGERS W/REGROUPING	368
28	DIVIDE 2-DGT INTEGER WITHOUT REMAINDER	389
29	MULTIPLY SINGLE DGT INTEGERS WO REGROUP	340
13	ADD TRIPLE DGT INTEGERS W/REGROUPING	376
09	ADD MULTIDIGIT INTGRS W/REGROUP	397
12	ADD DBLE DGT INTEGERS W/REGROUPING	370
16	SUBTRACT TRIPLE DGT INTEGERS W/REGROUP	417
	MEASUREMENT APPLICATIONS	
23	APPLY TELLING TIME	422
10	APPLY-MONEY MIXED OPERATIONS	387
19	APPLY-MONEY SUBTRACTING	404
22	APPLY TELLING TIME	296
	ARITHMETIC APPLICATIONS	
20	APPLY ADDITIONS-INTEGERS	401
	APPLY FUNCTIONS, GRAPHS (CHARTS/TABLES)	
21	APPLY-FUNCTIONS, GRAPHS (CHARTS/TABLES)	402
	MEASUREMENT COMPUTATION	
24	COMPUTE MEASURE OF UNDEFINED SQUARE UNITS	350
	APPLY ARITHMETIC PROPERTIES	
25	APPLY ARITH PROP.-ORDERS/SEQUENCE	408
	COMPREHEND GEOMETRY	
26	COMPR.GEOMETRY-ID 2-DIMEN.FIGURES	384
27	COMPR.GEOMETRY-ID 2-DIMEN.FIGURES	434
	COMPUTER KNOWLEDGE	
30	COMPUTER KNOWLEDGE	502
30	$\bar{X}$ FORM DIFFICULTIES	395.7

DIFFICULTY RANGE: 296-502

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-12

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

MATHEMATICS: GRADE 5

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	ARITHMETIC COMPUTATION	
23	DIVIDE MULTI DGT BY 2-DGT-NO REMAINDER	492
22	DIVIDE MULTI DGT BY 2-DGT-NO REMAINDER	469
12	DIVIDE DECIMAL BY WHOLE NUMBER	467
07	MULT 2-3 DGTS BY 2-DGTS WITHOUT REGROUP	439
20	SUBTRACT DECIMALS-PTS ALIGNED-SAME DENOM	436
21	MULT WHOLE NUMBER BY 1-PLACE DECIMAL	394
10	ADD MULTI DGT INTGRS WITH REGROUP	391
06	MULT INTEGERS W/RGP 2-3 DGTS X 2-DGTS	472
24	SUCCESSIVE OPERATIONS-MULTIPLY-INTEGERS	413
11	DIVIDE DECIMAL BY WHOLE NUMBER	441
08	MULT INTEGERS W/RGP 2-3 DGTS X 2-DGTS	469
02	COMPUTE GREATEST COMMON FACTOR	514
01	COMPUTE FACTORS OF A NUMBER	526
	APPLY ARITHMETIC PROPERTIES	
03	APPLY ARITH PROP.-ORDER/SEQUENCE	564
	COMPREHENSION ARITHMETIC PROPERTIES	
04	COMPR-SIZE/MAGNITUDE OF NUMBERS	520
05	COMPR-SIZE/MAGNITUDE OF NUMBERS	543
	COMPR.-PROBABILITY & STATISTICS	
09	COMPR-PROBABILITY & STATISTICS-AVERAGES	479
	ARITHMETIC APPLICATIONS	
14	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	494
13	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	535
28	APPLY ADDITION-INTEGERS	447
15	APPLY DIVISION-INTEGERS	473
	MEASUREMENT APPLICATIONS	
16	APPLY-MONEY-SUBTRACTING	506
29	APPLY ENGLISH MEASURE-PLANE-SQUARE	515
	APPLY FUNCTIONS, GRAPHS (CHARTS/TABLES)	
17	APPLY-FUNCTIONS, GRAPHS (CHARTS/TABLES)	460
19	APPLY-FUNCTIONS, GRAPHS (CHARTS/TABLES)	493
18	APPLY-FUNCTIONS, GRAPHS (CHARTS/TABLES)	480
	COMPREHEND GEOMETRY	
25	COMPR.GEOMTRY-ID 2-DIMEN.FIGURES	484
27	COMPR.RELATIONS BETWEEN GEO FIGURES	436
	MEASUREMENT COMPUTATION	
26	PLANE METRIC SQUARE MEASUREMENT	396
	COMPUTER KNOWLEDGE	
30	COMPUTER KNOWLEDGE	515
30		
	$\bar{X}$ FORM DIFFICULTY	475.3
	RANGE: 391-564	

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-13

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

MATHEMATICS: GRADE [illegible]

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	ARITHMETIC COMPUTATION	
07	DIV.MULTI.-DGT BY 2-DGT-NO REMAINDER	510
06	MULT.WHOLE NUM X MXED FRACT-NO RENAME	462
03	ADD DECIMALS-PTS UNALIGNED-DIFF DENOM	494
08	DIVIDE DECIMAL BY DECIMAL	527
05	MULTI. 4 DGT X 3-4 DGT W/REGROUPING	490
16	MIXED OPER-NO GROUP.SIGNS-INTEGERS	621
04	SUBTRACT MULTI DGT INTEGERS W/REGROUPING	460
18	CONVERT FRACTIONS TO DECIMALS	459
17	CONVERT FRACTIONS TO DECIMALS	543
09	CONVERT PERCENT TO FRACTION	525
20	CONVERT DECIMALS TO FRACTIONS	593
21	CONVERT DECIMALS TO FRACTIONS	560
22	COMPUTE CONVERSION OF FRACTIONS TO EQUIVAL.	517
23	COMPUTE CONVERSIONS/SIMPLIFICATIONS	553
24	CONVERT DECIMALS TO FRACTIONS	562
25	COMPUTE EXPONENTIAL NOTATION	536
01	ADD MULTI DGT INTGRS WITH REGROUP	480
02	SUBTRACT FRACTIONS-COMMON UNLIKE DENOMS.	555
	NUMERIC CONCEPTS IN TEXT	
10	PRICE IN ONE PRODUCT AD	546
	MEASUREMENT APPLICATIONS	
11	APPLY METRIC PLANE MEASUREMENT-LINEAR	556
	APPLY PROBABILITY & STATISTICS	
12	APPLY PROBABILITY & STATISTICS-AVERAGES	557
30	APPLY PROB & STATS-ODDS/PROBABILITY	564
	APPLY FUNCTIONS, GRAPHS (CHARTS/TABLES)	
14	APPLY FUNCTIONS, GRAPHS (CHARTS/TABLES)	483
13	APPLY FUNCTIONS, GRAPHS (CHARTS/TABLES)	518
	COMPREHEND GEOMETRY	
15	COMPR.IDENT. ANGLES	542
	COMPREHENSION-MEASUREMENT	
19	COMPR.MEASURMT.-STD UNITS (INC.CALENDAR)	410
	APPLY-USE OF SIMPLE FORMULAS	
27	APPLY-USE SIMPLE GEOMETRIC FORMULAS	601
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	576
26	APPLY-USE SIMPLE GEOMETRIC FORMULAS	590
	COMPUTER KNOWLEDGE	
29	COMPUTER KNOWLEDGE	532
30	$\bar{X}$ FORM DIFFICULTY	530.7

RANGE: 410-621

**Mean Rasch calibrated item difficulty: range 50-800

TABLE A1-14

BASIC SKILLS ASSESSMENT TEST: ITEM DIFFICULTIES

MATHEMATICS: GRADE 11

ITEM NO.	SKILL AREA/ITEM DESCRIPTOR	CALIBRATED DIFFICULTY VALUE
	ARITHMETIC COMPUTATION	
04	ADD MIXED FRACTIONS W/UNLIKE DENOM.	568
02	SUB.MULTI DGT INTEGERS W/REGROUPING	479
15	MIXED OPER-NO GROUP.SIGNS-MIXED FORMAT	639
06	DIVIDE MIXED FRACTION BY WHOLE NUMBER	576
08	CONVERT DECIMALS TO FRACTIONS	588
09	CONVERT PERCENT TO FRACTION	569
10	CONVERT FRACTION TO PERCENT	591
05	MULTPLY WHOLE NUM X MXD FRACT.-NO RENAME	603
03	SUBTRACT MULTI DGT INTEGERS W/REGROUPING	460
01	ADD MULTI DGT INTGRS WITH REGROUP	495
07	MULTIPLY MULTI-PLACE DECIMALS	586
	APPLY ALGEBRA	
12	APPLY-ALGEBRA-SOLVE 1-STEP EQUATIONS	475
11	APPLY-ALGEBRA-SOLVE 1-STEP EQUATIONS	529
	COMPUTER KNOWLEDGE	
13	COMPUTER KNOWLEDGE	498
	APPLY-ARITHMETIC PROPERTIES	
14	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564
	MEASUREMENT APPLICATIONS	
16	APPLY-TIME MIXED OPERATIONS	503
19	APPLY-MONEY MULTIPLYING	469
	APPLY-PROBABILITY & STATISTICS	
17	APPLY-PROBABILITY & STATISTICS-AVERAGES	597
	ARITHMETIC APPLICATIONS	
18	APPLY DIVISION-DECIMALS	573
	APPLY-PERCENTS	
20	APPLY-PERCENTS-MONEY SITUATIONS	588
	DOMESTIC SKILLS	
21	DOMESTIC SKILLS-QUANTITIES	529
	APPLY-USE OF SIMPLE FORMULAS	
22	APPLY-USE SIMPLE GEOMETRIC FORMULAS	567
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	564
29	APPLY-USE SIMPLE GEOMETRIC FORMULAS	579
	APPLY-FUNCTIONS, GRAPHS (CHARTS/TABLES)	
23	APPLY-FUNCTIONS, GRAPHS (CHARTS/TABLES)	518
24	APPLY-FUNCTIONS, GRAPHS (CHARTS/TABLES)	553
25	APPLY-FUNCTIONS, GRAPHS (CHARTS/TABLES)	452
	COMPREHEND GEOMETRY	
27	COMP.GEOMETRY-ID 2-DIMEN.FIGURES	613
26	COMP.IDENTIFYING ANGLES	578
	MEASUREMENT COMPUTATION	
30	SOLID METRIC SQUARE MEASUREMENT	676
30		552

$\overline{X}$ FORM DIFFICULTY

RANGE: 475-676

**Mean Rasch calibrated item difficulty: range 50-800

APPENDIX 2

THE DISTRIBUTION OF RASCH ITEM DIFFICULTIES FOR THE BASIC SKILLS ASSESSMENT TESTS.

SPRING - 1980

TABLE A2-1

DISTRIBUTION OF RASCH ITEM DIFFICULTY VALUES FOR THE BASIC SKILLS ASSESSMENT PROGRAM:

GRADE 3

RASCH DIFFICULTY RANGE	NUMBER OF ITEMS		
	READING	LANGUAGE ARTS	MATHEMATICS
280 - 300			1
301 - 320			2
321 - 340		1	1
341 - 360		8	1
361 - 380		5	2
381 - 400	1	4	7
401 - 420	4	2	9
421 - 440	3	3	3
441 - 460	3	3	3
461 - 480	1	2	
481 - 500	3	1	
501 - 520	7	2	1
521 - 540	3		
541 - 560		1	
561 - 580	1		
581 - 600			
601 - 620			
621 - 640			
641 - 660			
661 - 680			
681 - 700			

TABLE A2-2

DISTRIBUTION OF RASCH ITEM DIFFICULTY VALUES FOR THE BASIC SKILLS ASSESSMENT PROGRAM: GRADE 4

RASCH DIFFICULTY RANGE	NUMBER OF ITEMS READING	LANGUAGE ARTS
280 - 300		
301 - 320		
321 - 340		
341 - 360	1	1
361 - 380		3
381 - 400	1	4
401 - 420	2	4
421 - 440	4	3
441 - 460	3	3
461 - 480	6	3
481 - 500	2	3
501 - 520	4	1
521 - 540	1	1
541 - 560	2	3
561 - 580		2
581 - 600		1
601 - 620	1	
621 - 640		
641 - 660		
661 - 680		
681 - 700		

TABLE A2-3

DISTRIBUTION OF RASCH ITEM DIFFICULTY VALUES FOR THE BASIC SKILLS ASSESSMENT PROGRAM: GRADE 5

RASCH DIFFICULTY RANGE	NUMBER OF ITEMS MATHEMATICS
280 - 300	
301 - 320	
321 - 340	
341 - 360	
361 - 380	
381 - 400	3
401 - 420	1
421 - 440	3
441 - 460	3
461 - 480	7
481 - 500	4
501 - 520	5
521 - 540	2
541 - 560	1
561 - 580	1
581 - 600	
601 - 620	
621 - 640	
641 - 660	
661 - 680	
681 - 700	

TABLE A2-4

DISTRIBUTION OF RASCH ITEM DIFFICULTY VALUES FOR THE BASIC SKILLS ASSESSMENT PROGRAM:

GRADE 6

RASCH DIFFICULTY RANGE	NUMBER OF ITEMS READING	LANGUAGE ARTS
280 - 300		
301 - 320		
321 - 340		
341 - 360		
361 - 380		1
381 - 400		1
401 - 420		
421 - 440	3	2
441 - 460	4	3
461 - 480	1	6
481 - 500	3	4
501 - 520	4	4
521 - 540	5	4
541 - 560	2	2
561 - 580	1	1
581 - 600	2	1
601 - 620	1	
621 - 640		
641 - 660		
661 - 680		
681 - 700		

TABLE A2-5

DISTRIBUTION OF RASCH ITEM DIFFICULTY VALUES FOR THE BASIC SKILLS ASSESSMENT PROGRAM: GRADE 7

RASCH DIFFICULTY RANGE	NUMBER OF ITEMS MATHEMATICS
280 - 300	
301 - 320	
321 - 340	
341 - 360	
361 - 380	
381 - 400	
401 - 420	1
421 - 440	
441 - 460	2
461 - 480	2
481 - 500	3
501 - 520	3
521 - 540	4
541 - 560	8
561 - 580	3
581 - 600	2
601 - 620	1
621 - 640	1
641 - 660	
661 - 680	
681 - 700	

TABLE A2-6

DISTRIBUTION OF RASCH ITEM DIFFICULTY VALUES FOR THE BASIC SKILLS ASSESSMENT PROGRAM:

GRADE 9

RASCH DIFFICULTY RANGE	NUMBER OF ITEMS READING	LANGUAGE ARTS
280 - 300		
301 - 320		
321 - 340		
341 - 360		
361 - 380		1
381 - 400		1
401 - 420		
421 - 440		1
441 - 460		2
461 - 480		6
481 - 500	3	2
501 - 520	1	4
521 - 540	1	3
541 - 560	4	2
561 - 580	8	6
581 - 600	2	4
601 - 620	3	
621 - 640	1	
641 - 660	1	
661 - 680	1	
681 - 700		1

TABLE A2-7

DISTRIBUTION OF RASCH ITEM DIFFICULTY VALUES FOR THE BASIC SKILLS ASSESSMENT PROGRAM:

GRADE 11

RASCH	NUMBER OF ITEMS		
DIFFICULTY RANGE	READING	LANGUAGE ARTS	MATHEMATICS
280 - 300			
301 - 320			
321 - 340			
341 - 360			
361 - 380			
381 - 400			
401 - 420			
421 - 440		2	
441 - 460		3	1
461 - 480		1	4
481 - 500	1	3	2
501 - 520	6	5	2
521 - 540	4	3	2
541 - 560	3	5	1
561 - 580	3	4	9
581 - 600	3	2	5
601 - 620		2	2
621 - 640	5	2	1
641 - 660	1		
661 - 680			1
681 - 700			

Appendix 3

Rasch Item Analysis Data Used for Item Review and Selection for the Basic Skills Assessment Tests, Spring 1980

Table A3 - 1

Item Characteristic Data from FORCAL Item Analyses
Reading, Grade 3

		ITEM CHARACTERISTIC CURVE						DEPARTURE FROM EXPECTED ICC						ITEM FIT STATISTICS					
SEQ NUM	ITEM NAME	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	LOGIT BIAS	BETWN TTEST	TOTAL TTEST	DEG FRDM	DISC INDX	POINT BISER
1	1997	0.85	0.93	0.97	0.94	0.97	0.97	0.07	0.03	-0.02	-0.01	-0.00	-0.01	0.00	14.19	-3.44	2225	0.71	0.16
2	1998	0.72	0.87	0.89	0.93	0.93	0.95	0.05	0.03	0.00	0.00	-0.02	-0.01	0.00	10.20	-3.66	3905	0.81	0.25
3	1999	0.76	0.87	0.91	0.94	0.96	0.98	0.03	0.01	-0.00	-0.00	0.00	0.00	0.00	2.67	-4.65	2825	0.91	0.26
4	270	0.51	[illegible]	0.86	0.92	0.94	0.97	-0.06	-0.01	0.03	0.03	0.02	0.03	0.00	15.75	-8.72	4335	1.22	0.43
5	519	0.48	0.73	0.82	0.89	0.93	0.97	-0.05	-0.00	0.01	0.02	0.02	0.03	0.00	13.58	-8.49	4819	1.19	0.43
6	1096	0.72	0.90	0.94	0.95	0.96	0.98	-0.02	0.03	0.02	0.01	-0.01	0.01	0.00	7.92	-7.01	2735	1.04	0.33
7	521	0.21	0.37	0.43	0.54	0.60	0.67	0.04	0.05	0.01	0.01	-0.03	-0.04	0.00	11.64	-9.44	8756	0.80	0.31
8	522	0.72	0.92	0.96	0.98	0.96	0.98	-0.05	0.02	0.03	0.02	0.01	0.00	0.00	15.17	-7.96	2345	1.17	0.36
9	523	0.45	0.70	0.75	0.81	0.85	0.86	0.03	0.07	0.02	0.00	-0.01	-0.04	0.00	13.49	-3.78	5973	0.83	0.32
10	524	0.72	0.89	0.92	0.94	0.96	0.95	0.02	0.04	0.01	0.00	0.00	-0.02	0.00	4.81	-5.25	3041	0.87	0.28
11	1536	0.60	0.83	0.87	0.93	0.95	0.97	-0.03	0.02	0.01	0.02	0.01	0.01	0.00	8.34	-6.96	3791	1.10	0.37
12	525	0.29	0.35	0.42	0.51	0.59	0.64	0.12	0.04	0.00	-0.02	-0.04	-0.06	0.00	24.39	-6.72	8786	0.59	0.24
13	526	0.25	0.41	0.54	0.66	0.74	0.82	0.00	-0.02	[illegible]	0.01	0.01	0.02	0.00	2.37	-9.82	7948	1.05	0.39
14	1097	0.52	0.73	0.82	0.89	0.95	0.96	-0.03	-0.01	0.00	0.02	0.03	0.02	0.00	10.44	-7.86	4062	1.13	0.41
15	56	0.32	0.55	0.70	0.62	0.92	0.95	-0.08	-0.05	-0.01	0.03	0.06	0.06	0.00	22.63	-11.82	6238	1.34	0.49
16	527	0.30	0.40	0.49	0.60	0.73	0.61	0.07	-0.01	-0.03	-0.03	0.01	0.03	0.00	13.31	-8.04	8184	0.91	0.34
17	1095	0.23	0.33	0.49	0.58	0.69	0.79	0.02	-0.03	0.01	-0.02	0.01	0.04	0.00	8.02	-11.16	8412	1.04	0.37
18	1098	0.34	0.52	0.59	0.67	0.72	0.76	0.07	0.07	0.02	-0.01	-0.04	-0.05	0.00	16.82	-3.77	7719	0.72	0.29
19	531	0.32	0.51	0.66	0.74	0.81	0.87	-0.00	-0.01	0.03	0.01	0.00	0.02	0.00	2.30	-7.85	7089	1.04	0.39
20	532	0.33	0.55	0.70	0.80	0.88	0.91	-0.05	-0.03	0.01	0.03	0.04	0.03	0.00	12.97	-9.77	6481	1.20	0.45
21	533	0.24	0.43	0.60	0.77	0.85	0.91	-0.07	-0.08	-0.02	0.05	0.06	0.07	0.00	23.01	-13.54	7199	1.30	0.49
22	1099	0.32	0.54	0.70	0.82	0.88	0.93	-0.06	-0.05	0.01	0.04	0.04	0.05	0.00	17.32	-10.70	6401	1.20	0.47
23	535	0.24	0.43	0.60	0.71	0.79	0.86	-0.04	-0.04	0.02	0.03	0.02	0.03	0.00	10.34	-11.15	7606	1.17	0.43
24	1128	0.41	0.65	0.81	0.88	0.94	0.95	-0.08	-0.04	0.03	0.04	0.05	0.03	0.00	19.87	-10.57	5253	1.29	0.48
25	1100	0.26	0.49	0.61	0.69	0.77	0.82	-0.01	0.02	0.03	0.00	0.01	0.00	0.00	2.15	-8.35	7621	1.02	0.38
26	1118	0.29	0.47	0.55	0.63	0.72	0.76	0.05	0.06	0.01	-0.02	-0.01	-0.03	0.00	12.21	-5.65	8020	0.79	0.31

SCORE RANGE	7-14	15-17	18-19	20-21	22-22	23-23
MEAN ABILITY	-0.28	0.58	1.05	1.50	1.90	2.24
MEAN Z-TEST	0.1	0.5	0.7	1.1	1.1	1.2
SD(Z-TEST)	4.5	2.8	1.4	2.2	2.7	3.8
GROUP COUNT	1218	1062	1140	1781	1231	1415

PLUS=TOO MANY RIGHT
MINUS=TOO MANY WRONG

LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
ASSOCIATED WITH ITEM MISFIT

26 ITEMS 7847 PERSONS WITH MEAN ABILITY = 1.80 AND STD. DEV. = 0.96

Table A3 - 2

Item Characteristic Data from FORCAL Item Analyses
Reading, Grade 4

```
                ITEM CHARACTERISTIC CURVE                     DEPARTURE FROM EXPECTED ICC                       ITEM FIT STATISTICS
-------------------------------------------------------------------------------------------------------------------------------- ---------
 SEQ  ITEM I  1ST   2ND   3RD   4TH   5TH   6TH  I  1ST   2ND   3RD   4TH   5TH   6TH  I  LOGIT  BETWN  TOTAL  DEG   DISC    POINT  I
 NUM  NAME I GROUP GROUP GROUP GROUP GROUP GROUP I GROUP GROUP GROUP GROUP GROUP GROUP I  BIAS   TTEST  TTEST  FROM  INDX    BISER  I
-------------------------------------------------------------------------------------------------------------------------------- ---------
  1    538 I  0.94  0.97  0.98  0.98  0.99  0.99 I  0.02  0.01 -0.00 -0.00  0.00 -0.00 I   0.00   6.63  -3.97  1121  0.76    0.13   I
  2    539 I  0.48  0.59  0.69  0.79  0.81  0.89 I  0.10  0.00 -0.03  0.00 -0.02  0.01 I   0.00  16.04   1.90  7751  0.81    0.29   I
  3    540 I  0.33  0.36  0.44  0.51  0.60  0.70 I  0.15  0.02 -0.03 -0.05 -0.03 -0.02 I   0.00  28.82   2.76  9566  0.61    0.22   I
  4   1547 I  0.19  0.30  0.44  0.57  0.69  0.82 I  0.01 -0.05 -0.03  0.00  0.05  0.09 I   0.00  18.60  -5.93  9544  1.19    0.38   I
  5    541 I  0.69  0.87  0.94  0.97  0.98  0.99 I -0.03 -0.00  0.02  0.02  0.02  0.02 I   0.00  14.67  -5.60  3467  1.19    0.36   I
  6   1167 I  0.74  0.89  0.93  0.97  0.97  0.98 I  0.00  0.00  0.01  0.02  0.01  0.01 I   0.00   5.48  -4.26  3232  1.03    0.30   I
  7    542 I  0.43  0.65  0.82  0.88  0.91  0.95 I -0.04 -0.03  0.03  0.03  0.03  0.03 I   0.00  15.13  -4.87  6607  1.19    0.41   I
  8   1542 I  0.65  0.81  0.89  0.93  0.96  0.97 I  0.01 -0.01  0.01  0.01  0.02  0.01 I   0.00   6.66  -3.51  4483  1.03    0.33   I
  9   1192 I  0.88  0.98  0.99  0.99  1.00  1.00 I -0.03  0.02  0.01  0.01  0.01  0.00 I   0.00  15.13  -5.66  1072  1.28    0.29   I
 10    543 I  0.46  0.74  0.87  0.92  0.95  0.98 I -0.04 -0.02  0.03  0.04  0.04  0.04 I   0.00  22.59  -7.36  5565  1.33    0.45   I
 11     99 I  0.40  0.64  0.75  0.83  0.87  0.92 I -0.01  0.01  0.00  0.02  0.01  0.02 I   0.00   5.86  -2.98  7324  1.07    0.38   I
 12   1830 I  0.63  0.86  0.94  0.96  0.98  0.98 I -0.06  0.00  0.03  0.03  0.03  0.01 I   0.00  17.75  -6.05  3780  1.24    0.39   I
 13    544 I  0.60  0.89  0.96  0.98  0.98  0.99 I -0.12  0.02  0.04  0.04  0.02  0.02 I   0.00  26.86  -8.75  3472  1.40    0.46   I
 14    545 I  0.69  0.93  0.96  0.97  0.98  0.96 I -0.07  0.03  0.03  0.02  0.01  0.01 I   0.00  14.39  -7.52  2434  1.24    0.39   I
 15    546 I  0.58  0.84  0.89  0.94  0.95  0.97 I -0.05  0.03  0.01  0.02  0.01  0.01 I   0.00  12.04  -5.38  4631  1.13    0.38   I
 16    547 I  0.35  0.54  0.64  0.71  0.77  0.84 I  0.05  0.03 -0.00 -0.02 -0.01 -0.00 I   0.00   9.08   0.67  8578  0.86    0.32   I
 17   1094 I  0.64  0.75  0.81  0.85  0.88  0.88 I  0.12  0.02 -0.00 -0.02 -0.02 -0.05 I   0.01  22.05   3.08  6017  0.63    0.21   I
 18    615 I  0.60  0.87  0.94  0.96  0.98  0.98 I -0.04  0.02  0.03  0.03  0.02  0.01 I   0.00  20.35  -7.15  3917  1.27    0.41   I
 19    104 I  0.26  0.34  0.46  0.59  0.65  0.76 I  0.07 -0.01 -0.02  0.01 -0.01  0.03 I   0.00  13.25  -1.38  9510  0.92    0.31   I
 20    910 I  0.19  0.20  0.26  0.28  0.29  0.32 I  0.12  0.05  0.03 -0.02 -0.08 -0.14 I   0.00  37.06  -3.10  8450  0.32    0.10   I
 21    649 I  0.40  0.65  0.76  0.82  0.88  0.92 I -0.01  0.01  0.01  0.01  0.02  0.02 I   0.00   5.26  -2.76  7238  1.06    0.38   I
 22   1127 I  0.56  0.80  0.89  0.92  0.94  0.96 I -0.04  0.01  0.03  0.02  0.01  0.01 I   0.00  10.06  -4.99  5027  1.11    0.38   I
 23   1426 I  0.30  0.48  0.59  0.69  0.76  0.82 I  0.03  0.01 -0.01  0.00  0.01  0.01 I   0.00   3.75  -0.96  8917  0.95    0.34   I
 24    551 I  0.30  0.36  0.44  0.49  0.61  0.66 I  0.13  0.03 -0.02 -0.06 -0.01 -0.04 I   0.00  26.09   2.49  9577  0.62    0.22   I
 25   1967 I  0.22  0.34  0.51  0.62  0.71  0.81 I  0.01 -0.04 -0.00  0.01  0.03  0.06 I   0.00  12.68  -4.56  9425  1.14    0.38   I
 26   1128 I  0.56  0.84  0.95  0.98  0.98  0.99 I -0.12  0.00  0.04  0.05  0.03  0.03 I   0.00  28.33  -9.15  4019  1.43    0.48   I
 27   1182 I  0.40  0.66  0.83  0.89  0.93  0.96 I -0.07 -0.03  0.04  0.04  0.04  0.04 I   0.00  20.59  -6.46  6502  1.29    0.44   I
-------------------------------------------------------------------------------------------------------------------------------- ---------
SCORE RANGE    8-16 17-19 20-21 22-22 23-23 24-24                                      LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
MEAN ABILITY  -0.02  0.91  1.45  1.83  2.14  2.51          PLUS=TOO MANY RIGHT                      ASSOCIATED WITH ITEM MISFIT
                                                           MINUS=TOO MANY WRONG

MEAN Z-TEST     0.5   0.9   1.6   1.6   1.7   1.6
SD(Z-TEST)      7.3   2.6   3.0   2.8   2.9   3.9
GROUP COUNT    1427  1930  2257  1433  1387  1367

  27 ITEMS    9801 PERSONS WITH MEAN ABILITY =   1.70  AND STD. DEV. =   0.85
```

Table A3 - 3

Item Characteristic Data from FORCAL Item Analyses
Reading, Grade 6

```
                    ITEM CHARACTERISTIC CURVE                    DEPARTURE FROM EXPECTED ICC                            ITEM FIT STATISTICS
--------------------------------------------------------------------------------------------------------------------------------------------------- ---------
SEQ  ITEM I  1ST   2ND   3RD   4TH   5TH   6TH  I  1ST   2ND   3RD   4TH   5TH   6TH  I  LOGIT  BETWN  TOTAL   DEG   DISC   POINT  I
NUM  NAME I GROUP GROUP GROUP GROUP GROUP GROUP I GROUP GROUP GROUP GROUP GROUP GROUP I   BIAS  TEST   TEST   FRDM  INDX   BISER  I
--------------------------------------------------------------------------------------------------------------------------------------------------- ---------
  1  1552 I  0.84  0.92  0.94  0.97  0.98  0.98 I  0.03  0.01 -0.01  0.01  0.00 -0.00 I   0.00   4.14  -3.25  1944  0.88    0.22  I
  2  1154 I  0.75  0.91  0.95  0.98  0.99  0.99 I -0.03  0.01  0.01  0.02  0.02  0.01 I   0.00  11.66  -5.03  2185  1.19    0.34  I
  3  1265 I  0.62  0.80  0.89  0.90  0.94  0.95 I  0.01  0.00  0.02 -0.00  0.01  0.00 I   0.00   2.26  -2.86  3814  0.98    0.33  I
  4  1196 I  0.78  0.87  0.91  0.95  0.95  0.97 I  0.05  0.00 -0.01  0.01 -0.00  0.00 I   0.00   6.09  -2.24  2673  0.85    0.24  I
  5  1453 I  0.43  0.57  0.67  0.74  0.75  0.62 I  0.09  0.02 -0.00 -0.01 -0.05 -0.04 I   0.01  16.83   2.61  6231  0.70    0.27  I
  6  1990 I  0.70  0.91  0.95  0.96  0.98  0.98 I -0.05  0.03  0.02  0.01  0.02  0.01 I   0.00  13.26  -5.94  2517  1.19    0.37  I
  7  1436 I  0.24  0.40  0.53  0.65  0.74  0.82 I -0.00 -0.01 -0.02  0.01  0.03  0.05 I   0.00   6.65  -4.56  6932  1.10    0.39  I
  8  1422 I  0.64  0.82  0.86  0.89  0.91  0.92 I  0.04  0.04  0.00 -0.01 -0.02 -0.02 I   0.00  11.18  -1.22  3936  0.80    0.28  I
  9  1991 I  0.46  0.69  0.86  0.89  0.94  0.94 I -0.05 -0.02  0.04  0.03  0.04  0.02 I   0.00  15.12  -5.13  4731  1.22    0.42  I
 10  1992 I  0.74  0.94  0.97  0.98  0.99  1.00 I -0.07  0.02  0.03  0.02  0.02  0.02 I   0.00  19.15  -6.66  1996  1.34    0.40  I
 11  1993 I  0.68  0.89  0.94  0.98  0.98  0.99 I -0.06  0.02  0.02  0.04  0.02  0.02 I   0.00  17.52  -6.18  2617  1.29    0.40  I
 12  1994 I  0.36  0.60  0.77  0.84  0.90  0.94 I -0.06 -0.03  0.03  0.04  0.05  0.05 I   0.00  16.96  -6.20  5580  1.28    0.46  I
 13  1403 I  0.42  0.57  0.70  0.77  0.84  0.88 I  0.05 -0.01  0.00 -0.01  0.02  0.01 I   0.00   5.67  -1.08  5966  0.94    0.35  I
 14  1405 I  0.38  0.62  0.78  0.84  0.86  0.93 I -0.05 -0.01  0.03  0.03  0.03  0.04 I   0.00  12.21  -5.09  5535  1.20    0.43  I
 15   263 I  0.39  0.65  0.77  0.87  0.92  0.92 I -0.06  0.00  0.01  0.04  0.05  0.02 I   0.00  13.83  -5.30  5364  1.22    0.43  I
 16   410 I  0.24  0.48  0.65  0.79  0.84  0.91 I -0.08 -0.03  0.00  0.06  0.06  0.07 I   0.00  20.31  -7.73  6434  1.36    0.48  I
 17   496 I  0.51  0.71  0.85  0.89  0.94  0.97 I -0.03 -0.02  0.03  0.01  0.04  0.04 I   0.00  13.12  -4.22  4530  1.16    0.40  I
 18   717 I  0.62  0.81  0.87  0.90  0.94  0.95 I  0.01  0.02  0.00 -0.00  0.01 -0.00 I   0.00   2.50  -2.44  3835  0.96    0.32  I
 19   330 I  0.75  0.93  0.97  0.98  0.99  0.99 I -0.05  0.02  0.03  0.02  0.02  0.01 I   0.00  15.44  -6.13  2042  1.20    0.37  I
 20   343 I  0.25  0.39  0.49  0.59  0.63  0.72 I  0.05  0.02 -0.01  0.00 -0.04 -0.02 I   0.00   9.01  -1.17  7086  0.83    0.30  I
 21  1995 I  0.20  0.31  0.38  0.47  0.51  0.60 I  0.05  0.03 -0.02 -0.03 -0.05  0.01 I   0.00  13.27  -3.12  7160  0.82    0.28  I
 22   517 I  0.21  0.24  0.28  0.33  0.37  0.46 I  0.11  0.04 -0.02 -0.04 -0.08 -0.07 I   0.00  29.14  -3.51  6836  0.48    0.16  I
 23   385 I  0.32  0.46  0.57  0.66  0.73  0.82 I  0.06 -0.00 -0.01 -0.02 -0.01  0.02 I   0.00   8.76  -0.81  6754  0.90    0.32  I
 24  1909 I  0.34  0.63  0.78  0.86  0.89  0.90 I -0.07  0.00  0.04  0.06  0.04  0.01 I   0.00  15.22  -5.56  5604  1.23    0.44  I
 25  1418 I  0.46  0.67  0.80  0.86  0.92  0.93 I -0.02 -0.01  0.02  0.01  0.05  0.02 I   0.00   9.16  -3.74  5074  1.13    0.40  I
 26  1496 I  0.26  0.32  0.41  0.47  0.55  0.64 I  0.10  0.02 -0.02 -0.05 -0.03 -0.03 I   0.00  20.16  -0.78  7171  0.66    0.24  I
--------------------------------------------------------------------------------------------------------------------------------------------------- ---------
SCORE RANGE    7-15 16-18 19-20 21-21 22-22 23-23                                    LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
MEAN ABILITY  -0.09  0.78  1.32  1.69  1.99  2.36           PLUS=TOO MANY RIGHT                    ASSOCIATED WITH ITEM MISFIT
                                                            MINUS=TOO MANY WRONG
MEAN Z-TEST     0.3   0.7   1.1   1.1   1.4   1.4
SD(Z-TEST)      5.3   1.9   2.1   2.2   3.0   2.8
GROUP COUNT    1289  1482  1508   899   983  1059

 26 ITEMS    7220 PERSONS WITH MEAN ABILITY =    1.59  AND STD. DEV. =    0.90
```

Table A3 - 4

Item Characteristic Data from FORCAL Item Analyses
Reading, Grade 9

SEQ NUM	ITEM NAME	ITEM CHARACTERISTIC CURVE 1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	DEPARTURE FROM EXPECTED ICC 1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	ITEM FIT STATISTICS LOGIT BIAS	WITHN TEST	TOTAL TEST	DEG FRDM	DISC INDX	POINT BISER
1	553	0.13	0.17	0.17	0.25	0.33	0.47	0.04	0.03	-0.01	-0.01	-0.02	-0.02	0.00	10.35	1.17	4821	0.85	0.24
2	552	0.48	0.49	0.51	0.54	0.56	0.65	0.22	0.09	0.01	-0.04	-0.11	-0.13	0.01	37.12	10.92	5946	0.19	0.11
3	554	0.39	0.59	0.71	0.77	0.88	0.93	-0.06	-0.02	0.01	0.01	0.00	0.03	0.00	13.44	-2.45	5008	1.25	0.40
4	327	0.43	0.53	0.60	0.66	0.73	0.84	0.07	0.03	-0.00	-0.02	-0.03	-0.01	0.01	4.09	3.66	5604	0.41	0.27
5	456	0.26	0.43	0.57	0.69	0.78	0.91	-0.07	-0.05	-0.00	0.03	0.04	0.07	0.00	17.03	-2.94	5721	1.30	0.44
6	1569	0.58	0.83	0.93	0.95	0.98	0.99	-0.14	-0.00	0.05	0.04	0.04	0.03	0.00	25.93	-5.65	2162	1.55	0.42
7	1286	0.41	0.62	0.72	0.78	0.85	0.94	-0.06	0.00	0.02	0.00	0.02	0.05	0.00	11.64	-2.02	4904	1.21	0.30
8	557	0.40	0.49	0.52	0.54	0.57	0.66	0.14	0.10	0.04	-0.04	-0.04	-0.12	0.01	30.79	9.20	5959	0.39	0.10
9	1436	0.32	0.61	0.76	0.85	0.91	0.97	-0.17	-0.03	0.01	0.06	0.06	0.06	0.00	27.38	-6.05	4721	1.55	0.48
10	1720	0.72	0.87	0.91	0.96	0.97	0.99	-0.05	0.00	0.01	0.03	0.02	0.02	0.00	14.13	-3.03	2121	1.26	0.31
11	1252	0.67	0.78	0.80	0.82	0.83	0.88	0.10	0.07	0.01	-0.02	-0.05	-0.05	0.01	22.25	3.20	4077	0.52	0.16
12	1250	0.88	0.95	0.96	0.98	0.99	0.99	-0.01	0.01	-0.00	0.01	0.01	0.00	0.00	6.41	-3.13	1104	1.13	0.20
13	1922	0.73	0.85	0.88	0.90	0.93	0.94	0.03	0.03	0.01	-0.00	-0.00	-0.02	0.00	6.22	-0.84	2165	0.90	0.21
14	478	0.45	0.61	0.76	0.86	0.93	0.96	-0.07	-0.06	0.01	0.05	0.06	0.04	0.00	20.34	-3.81	4474	1.38	0.42
15	1467	0.36	0.53	0.64	0.77	0.86	0.93	-0.07	-0.04	0.02	0.03	0.05	0.05	0.00	15.58	-2.88	5198	1.30	0.42
16	1948	0.38	0.53	0.64	0.79	0.87	0.94	-0.06	-0.06	0.01	0.04	0.05	0.05	0.00	17.49	-2.41	5102	1.33	0.42
17	913	0.20	0.33	0.42	0.54	0.66	0.63	-0.03	-0.03	-0.04	0.00	0.04	0.07	0.00	13.47	-1.76	5988	1.26	0.41
18	517	0.29	0.43	0.57	0.66	0.71	0.69	-0.02	-0.03	0.01	0.02	-0.01	0.07	0.00	11.73	-0.67	5791	1.19	0.39
19	438	0.34	0.52	0.63	0.73	0.80	0.88	-0.04	-0.01	0.01	0.03	0.02	0.02	0.00	6.80	-0.83	5484	1.19	0.38
20	1909	0.63	0.81	0.87	0.92	0.92	0.98	-0.04	0.01	0.02	0.03	0.00	0.02	0.00	9.51	-2.61	3189	1.15	0.31
21	491	0.46	0.60	0.70	0.75	0.77	0.83	0.04	0.03	0.03	0.02	-0.03	-0.05	0.01	12.11	2.95	5222	0.70	0.27
22	405	0.42	0.55	0.64	0.71	0.76	0.84	0.04	0.01	0.00	0.00	0.03	-0.12	0.01	4.02	2.35	5436	0.88	0.30
23	369	0.43	0.54	0.54	0.60	0.64	0.75	0.13	0.09	-0.01	-0.03	-0.07	-0.07	0.01	24.55	7.22	5824	0.50	0.20
24	510	0.16	0.22	0.31	0.45	0.62	0.78	-0.12	-0.07	-0.07	-0.01	0.07	0.10	0.00	20.16	-3.12	5494	1.38	0.43
25	465	0.45	0.54	0.58	0.64	0.67	0.77	0.12	0.06	0.01	-0.02	-0.07	-0.08	0.01	21.99	6.52	5729	0.53	0.21
26	732	0.33	0.48	0.60	0.64	0.74	0.79	0.01	0.01	0.04	-0.01	0.01	-0.03	0.01	5.74	2.32	5753	0.81	0.32
27	294	0.20	0.24	0.24	0.29	0.41	0.55	0.08	0.04	0.01	-0.06	-0.03	-0.03	0.01	17.54	3.77	5434	0.71	0.23
28	216	0.32	0.51	0.64	0.75	0.88	0.96	-0.09	-0.05	-0.02	0.02	0.08	0.08	0.00	22.92	-4.46	5282	1.45	0.46
29	1996	0.26	0.42	0.57	0.69	0.87	0.95	-0.09	-0.09	-0.03	0.01	0.11	0.10	0.00	27.91	-5.42	5500	1.55	0.49

	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP
SCORE RANGE	8-14	15-17	18-19	20-21	22-23	24-29
MEAN ABILITY	-0.37	0.26	0.66	1.00	1.39	1.98
MEAN Z-TEST	0.0	0.2	0.4	0.6	1.0	1.1
SD(Z-TEST)	6.2	3.6	1.8	2.4	4.5	5.6
GROUP COUNT	1600	1199	1048	1199	1149	1091

PLUS=TOO MANY RIGHT
MINUS=TOO MANY WRONG

LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
ASSOCIATED WITH ITEM MISFIT

29 ITEMS 6676 PERSONS WITH MEAN ABILITY = 0.79 AND STD. DEV. = 0.73

Table A3 - 5

Item Characteristic Data from FORCAL Item Analyses
Reading, Grade 11

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                    ITEM CHARACTERISTIC CURVE                        DEPARTURE FROM EXPECTED ICC                          ITEM FIT STATISTICS
-------------------------------------------------------------------------------------------------------------------------------------------------- ---------
 SEQ   ITEM I  1ST    2ND    3RD    4TH    5TH    6TH  I  1ST    2ND    3RD    4TH    5TH    6TH  I  LOGIT  BETWN  TOTAL   DEG   DISC   POINT
 NUM   NAME I GROUP  GROUP  GROUP  GROUP  GROUP  GROUP I GROUP  GROUP  GROUP  GROUP  GROUP  GROUP I   BIAS   TEST   TEST  FREDM  INDX   BISER
-------------------------------------------------------------------------------------------------------------------------------------------------- ---------
   1   1265 !  0.67   0.71   0.83   0.91   0.93   0.95 I  0.01   0.00  -0.02   0.02   0.02   0.02 I   0.00   5.67  -1.14  2345   1.06   0.29
   2   1140 I  0.53   0.63   0.68   0.77   0.74   0.87 I  0.07  -0.01  -0.03   0.01  -0.01   0.00 I   0.01   7.05   2.44  3561   0.86   0.25
   3   1422 I  0.77   0.88   0.89   0.89   0.91   0.94 I  0.06   0.02   0.01  -0.02  -0.01  -0.01 I   0.00   7.55  -0.02  2027   0.73   0.19
   4   1474 I  0.28   0.25   0.33   0.32   0.38   0.51 I  0.13  -0.00   0.01  -0.05  -0.05  -0.04 I   0.01  22.32   4.08  4056   0.52   0.15
   5    477 I  0.59   0.78   0.92   0.92   0.95   0.98 I -0.08  -0.03   0.06   0.04   0.04   0.04 I   0.00  18.85  -4.03  2271   1.45   0.42
   6   1480 I  0.18   0.31   0.43   0.45   0.48   0.50 I  0.15   0.08   0.01  -0.04  -0.07  -0.10 I   0.01  25.27   8.48  4102   0.35   0.13
   7   1165 I  0.74   0.85   0.90   0.97   0.94   1.00 I -0.07   0.02   0.04   0.02   0.02   0.02 I   0.00  16.77  -4.17  1088   1.50   0.35
   8   1513 I  0.42   0.55   0.64   0.78   0.77   0.88 I  0.01  -0.04  -0.01   0.05   0.01   0.03 I   0.00   8.83   0.67  3018   1.08   0.32
   9   1410 I  0.65   0.86   0.96   0.99   0.99   0.99 I -0.06   0.01   0.02   0.02   0.02   0.01 I   0.00  11.04  -3.82   446   1.30   0.30
  10    443 I  0.63   0.83   0.91   0.93   0.98   0.98 I -0.17  -0.02   0.03   0.03   0.04   0.04 I   0.00  15.84  -4.78  2082   1.40   0.39
  11   1982 I  0.61   0.78   0.80   0.85   0.90   0.93 I  0.12   0.01  -0.01   0.01   0.02   0.01 I   0.00   1.51  -0.80  2755   1.00   0.31
  12   1086 I  0.74   0.84   0.85   0.85   0.88   0.92 I  0.06   0.04   0.03  -0.03  -0.13  -0.12 I   0.01  13.12   0.02  2387   0.61   0.20
  13    516 I  0.63   0.81   0.87   0.89   0.92   0.96 I -0.02   0.01   0.02   0.01   0.02   0.02 I   0.00   4.97  -2.03  2341   1.12   0.33
  14   1210 I  0.43   0.74   0.86   0.87   0.93   0.94 I -0.13   0.01   0.05   0.04   0.07   0.04 I   0.00  21.22  -4.44  2471   1.48   0.46
  15    389 I  0.43   0.52   0.55   0.62   0.68   0.70 I  0.10   0.02  -0.03  -0.0[illegible] [illegible].02  -0.07 I   0.01  12.85   0.27  4131   0.70   0.23
  16    898 I  0.27   0.35   0.43   0.48   0.56   0.70 I  0.04  -0.01  -0.01  -0.02  -0.01   0.02 I   0.01   5.21   1.44  4313   0.93   0.29
  17   1125 I  0.23   0.28   0.26   0.32   0.30   0.47 I  0.10   0.05  -0.04  -0.03  -0.03  -0.08 !   0.01  16.82   3.42  3456   0.55   0.17
  18    456 I  0.38   0.64   0.71   0.82   0.86   0.94 I -0.10  -0.01  -0.01   0.05   0.00   0.07 I   0.00  18.05  -3.71  3437   1.45   0.45
  19    493 I  0.65   0.89   0.95   0.97   0.97   0.99 I -0.11   0.02   0.06   0.05   0.03   0.03 !   0.00  21.13  -5.20  1730   1.57   0.44
  20    249 I  0.81   0.96   0.99   0.99   0.99   0.99 I -0.06   0.02   0.03   0.02   0.02   0.01 I   0.00  15.52  -4.41   436   1.46   0.39
  21   1985 I  0.27   0.37   0.49   0.51   0.65   0.77 I  0.01  -0.05  -0.00  -0.02   0.03   0.05 I   0.00   7.99   0.47  4300   1.13   0.33
  22    465 I  0.44   0.63   0.64   0.74   0.74   0.88 I  0.04   0.00  -0.01  -0.00  -0.00   0.02 I  -0.01   3.41   1.43  3613   0.93   0.29
  23    447 I  0.67   0.87   0.92   0.94   0.96   0.98 I -0.06   0.02   0.02   0.03   0.02   0.03 !   0.00  12.58  -4.24  1883   1.32   0.39
  24   1486 I  0.32   0.40   0.45   0.47   0.50   0.61 I  0.11   0.04   0.02  -0.03  -0.00  -0.06 !   0.01  17.65   5.06  4104   0.46   0.20
  25   1987 I  0.55   0.82   0.96   0.92   0.96   0.99 I -0.11   0.01   0.06   0.04   0.05   0.05 I   0.00  20.94  -5.25  2291   1.54   0.46
  26   1087 I  0.43   0.63   0.73   0.82   0.88   0.95 I -0.17  -0.04  -0.01   0.04   0.06   0.07 I   0.00  17.50  -2.41  3303   1.41   0.42
-------------------------------------------------------------------------------------------------------------------------------------------------- ---------
SCORE RANGE     7-16  17-18  19-19  20-20  21-21  22-23                                             LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
MEAN ABILITY    0.14   0.88   1.26   1.45   1.72   2.17            +[illegible]S=TOO EASY [illegible]                       ASSOCIATED WITH ITEM MISFIT
                                                                   -[illegible]S=TOO HARD [illegible]
MEAN Z-TEST     0.2    1.6    0.8    1.0    1.2    1.7
SD(Z-TEST)      5.5    1.4    1.9    2.2    2.7    3.6
GROUP COUNT     882    630    594    697    705    987

  26 ITEMS   4655 PERSONS WITH MEAN ABILITY =    1.34   ALL STD. DEV. =    0.93
```

Table A3 - 6

Item Characteristic Data from FORCAL Item Analyses
Language Arts, Grade 3

		ITEM CHARACTERISTIC CURVE						DEPARTURE FROM EXPECTED ICC						ITEM FIT STATISTICS					
SEQ NUM	ITEM NAME	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	LOGIT BIAS	BETWN TTEST	TOTAL TTEST	DEG FRDM	DISC INDX	POINT BISER
1	1428	0.76	0.89	0.94	0.96	0.98	0.99	0.01	-0.00	0.00	0.01	0.01	0.01	0.00	6.27	-6.09	3303	1.01	0.30
2	1429	0.72	0.90	0.96	0.98	0.99	0.99	-0.04	-0.01	0.02	0.02	0.02	0.01	0.00	17.00	-8.50	3164	1.20	0.38
3	1283	0.68	0.87	0.94	0.97	0.98	0.99	-0.03	-0.00	0.01	0.02	0.01	0.02	0.00	13.23	-7.93	3774	1.14	0.39
4	1430	0.18	0.21	0.30	0.40	0.49	0.56	0.09	-0.01	-0.02	-0.02	-0.02	-0.03	0.00	24.17	-8.57	9948	0.73	0.24
5	710	0.47	0.63	0.70	0.81	0.87	0.90	0.09	-0.00	-0.05	-0.01	-0.00	-0.00	0.00	16.19	-0.10	7502	0.82	0.33
6	1431	0.50	0.70	0.82	0.89	0.94	0.95	0.01	-0.02	-0.00	0.01	0.03	0.02	0.00	8.43	-4.95	6242	1.04	0.40
7	1432	0.70	0.82	0.91	0.94	0.97	0.98	0.04	-0.03	0.01	0.00	0.02	0.01	0.00	4.38	-4.48	4282	0.96	0.32
8	1433	0.38	0.61	0.74	0.83	0.90	0.93	-0.00	-0.03	-0.00	0.02	0.03	0.03	0.00	10.56	-5.75	7502	1.10	0.43
9	1434	0.58	0.79	0.88	0.93	0.97	0.98	-0.01	-0.02	0.01	0.02	0.03	0.02	0.00	11.76	-6.18	5112	1.10	0.40
10	1435	0.39	0.51	0.62	0.72	0.79	0.87	0.10	-0.02	-0.03	-0.02	-0.02	0.02	0.00	20.02	-0.18	8637	0.80	0.32
11	1436	0.34	0.41	0.45	0.52	0.57	0.62	0.16	0.07	-0.01	-0.06	-0.09	-0.11	0.01	41.39	4.11	9914	0.34	0.18
12	1105	0.24	0.26	0.26	0.24	0.34	0.43	0.16	0.07	-0.01	-0.07	-0.11	-0.09	0.00	47.74	-5.49	9078	0.26	0.10
13	1437	0.52	0.70	0.79	0.86	0.91	0.94	0.05	-0.01	-0.01	-0.01	0.00	0.01	0.00	8.43	-2.24	6488	0.91	0.35
14	1438	0.64	0.88	0.91	0.95	0.97	0.97	-0.03	0.03	0.00	0.01	0.01	0.00	0.00	9.60	-7.76	4287	1.07	0.39
15	726	0.25	0.32	0.39	0.47	0.55	0.65	0.12	0.03	-0.02	-0.04	-0.05	-0.03	0.00	24.01	-2.51	10051	0.61	0.24
16	122	0.32	0.51	0.62	0.67	0.72	0.79	0.07	0.04	0.02	-0.03	-0.05	-0.04	0.00	18.78	-0.14	9114	0.73	0.32
17	1439	0.68	0.93	0.96	0.98	0.99	0.99	-0.07	0.03	0.02	0.02	0.02	0.01	0.00	21.51	-10.89	3276	1.26	0.44
18	1440	0.48	0.73	0.79	0.86	0.92	0.94	0.02	0.02	-0.02	-0.00	0.02	0.01	0.00	5.06	-4.57	6533	0.98	0.40
19	1441	0.25	0.19	0.18	0.19	0.22	0.24	0.20	0.07	0.00	-0.07	-0.11	-0.17	0.00	65.51	-9.72	8712	-0.12	-0.03
20	231	0.26	0.39	0.55	0.69	0.83	0.90	0.02	-0.06	-0.03	0.00	0.06	0.08	0.00	21.89	-8.43	9195	1.10	0.43
21	104	0.27	0.37	0.49	0.62	0.77	0.88	0.06	-0.04	-0.05	-0.02	0.04	0.05	0.00	19.06	-5.54	9553	0.98	0.37
22	679	0.14	0.26	0.42	0.58	0.70	0.80	-0.02	-0.07	-0.03	0.02	0.05	0.08	0.00	19.47	-12.47	9967	1.24	0.43
23	1290	0.34	0.54	0.70	0.82	0.89	0.93	-0.01	-0.05	-0.01	0.03	0.05	0.05	0.00	16.68	-7.05	7991	1.16	0.45
24	644	0.29	0.58	0.75	0.86	0.92	0.96	-0.09	-0.04	0.01	0.05	0.06	0.06	0.00	25.86	-11.31	7650	1.35	0.52
25	1442	0.58	0.91	0.95	0.98	0.99	0.98	-0.11	0.04	0.04	0.03	0.02	0.01	0.00	27.57	-12.29	3963	1.34	0.50
26	1469	0.63	0.93	0.98	0.99	0.99	0.99	-0.11	0.04	0.04	0.03	0.02	0.02	0.00	30.00	-12.69	3393	1.39	0.50
27	1470	0.52	0.83	0.89	0.93	0.95	0.95	-0.06	0.03	0.03	0.02	0.02	0.00	0.00	14.45	-8.61	5271	1.14	0.44
28	1471	0.59	0.87	0.95	0.97	0.98	0.98	-0.08	0.01	0.04	0.03	0.02	0.02	0.00	21.99	-10.75	4155	1.27	0.47
29	1472	0.43	0.77	0.88	0.94	0.97	0.98	-0.11	0.00	0.04	0.04	0.05	0.04	0.00	26.32	-11.82	5743	1.34	0.52
30	1446	0.48	0.85	0.96	0.98	0.99	1.00	-0.16	0.02	0.06	0.05	0.04	0.03	0.00	36.69	-14.44	4560	1.51	0.57
31	1294	0.38	0.81	0.93	0.97	0.98	0.99	-0.19	0.02	0.07	0.07	0.04	0.04	0.00	39.06	-16.23	5364	1.55	0.60
32	1298	0.41	0.82	0.93	0.97	0.98	0.99	-0.17	0.02	0.06	0.06	0.04	0.03	0.00	36.80	-14.41	5176	1.50	0.57

SCORE RANGE	9-18	19-22	23-24	25-26	27-27	28-28
MEAN ABILITY	-0.31	0.73	1.24	1.89	2.06	2.37
MEAN Z-TEST	1.3	0.7	1.2	1.9	1.8	2.0
SD(Z-TEST)	12.1	4.0	3.4	4.6	4.3	4.8
GROUP COUNT	1765	1846	1537	2106	1292	1395

PLUS=TOO MANY RIGHT
MINUS=TOO MANY WRONG

LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
ASSOCIATED WITH ITEM MISFIT

32 ITEMS 9941 PERSONS WITH MEAN ABILITY = 1.58 AND STD. DEV. = 1.11

Table A3 - 7

Item Characteristic Data from FORCAL Item Analyses
Language Arts, Grade 4

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                   ITEM CHARACTERISTIC CURVE                  DEPARTURE FROM EXPECTED ICC                          ITEM FIT STATISTICS
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SEQ  ITEM I  1ST   2ND   3RD   4TH   5TH   6TH  I  1ST   2ND   3RD   4TH   5TH   6TH  I  LOGIT  BETWN   TOTAL   DEG    DISC   POINT  I
NUM  NAME I GROUP GROUP GROUP GROUP GROUP GROUP I GROUP GROUP GROUP GROUP GROUP GROUP I  BIAS   T-TEST  T-TEST  FROM   INDX   BISER  I
------------------------------------------------------------------------------------------------------------------------------------  ----------
  1  1448 I  0.35  0.44  0.56  0.67  0.80  0.91 I  0.07 -0.04 -0.03 -0.01  0.02  0.05 I   0.00  17.43    2.65  9300   0.94   0.36  I
  2  1449 I  0.23  0.18  0.21  0.26  0.34  0.51 I  0.15  0.03 -0.02 -0.03 -0.08 -0.04 I   0.01  42.49    6.40  8461   0.49   0.16  I
  3  1450 I  0.51  0.73  0.86  0.91  0.93  0.96 I -0.04 -0.01  0.04  0.03  0.01  0.01 I   0.00  13.78   -3.82  8145   1.14   0.40  I
  4   284 I  0.18  0.19  0.21  0.25  0.32  0.46 I  0.11  0.05  0.00 -0.03 -0.07 -0.07 I   0.01  36.72    5.82  8143   0.51   0.16  I
  5  1451 I  0.21  0.22  0.23  0.27  0.34  0.48 I  0.13  0.07  0.00 -0.04 -0.08 -0.08 I   0.01  40.39    7.46  8475   0.64   0.15  I
  6  1452 I  0.66  0.84  0.89  0.93  0.95  0.97 I -0.00  0.02  0.00  0.01 -0.00  0.00 I   0.00   2.03   -2.61  4774   1.00   0.32  I
  7  1453 I  0.73  0.89  0.93  0.95  0.97  0.98 I -0.01  0.01  0.02  0.00  0.01  0.00 I   0.00   4.98   -4.25  3712   1.02   0.31  I
  8  1097 I  0.57  0.69  0.73  0.78  0.82  0.87 I  0.15  0.05 -0.01 -0.03 -0.05 -0.05 I   0.01  24.65    8.03  7699   0.55   0.22  I
  9  1454 I  0.17  0.13  0.13  0.14  0.17  0.23 I  0.14  0.05  0.01 -0.03 -0.07 -0.14 I   0.01  53.15    3.60  6049   0.19   0.02  I
 10  1455 I  0.74  0.90  0.93  0.95  0.97  0.99 I -0.01  0.02  0.01  0.00  0.00  0.01 I   0.00   3.76   -3.90  3543   1.02   0.29  I
 11  1456 I  0.71  0.89  0.93  0.96  0.98  0.99 I -0.04  0.01  0.01  0.02  0.01  0.01 I   0.00  11.59   -5.09  3647   1.13   0.34  I
 12  1457 I  0.78  0.93  0.96  0.98  1.00  0.99 I -0.04  0.01  0.01  0.02  0.02  0.00 I   0.00  16.75   -6.42  2616   1.22   0.34  I
 13  1458 I  0.56  0.60  0.69  0.74  0.82  0.89 I  0.17  0.00 -0.01 -0.04 -0.03 -0.02 I   0.01  28.86    8.27  8198   0.61   0.24  I
 14   948 I  0.31  0.44  0.51  0.61  0.76  0.88 I  0.06  0.01 -0.04 -0.03  0.01  0.04 I   0.00  16.07    3.33  9608   0.93   0.35  I
 15   461 I  0.15  0.15  0.18  0.28  0.45  0.65 I  0.07 -0.02 -0.06 -0.04  0.02  0.08 I   0.00  25.21   -0.60  8643   1.01   0.30  I
 16   905 I  0.74  0.92  0.94  0.96  0.97  0.99 I -0.03  0.02  0.01  0.01  0.00  0.01 I   0.00   9.08   -5.35  3304   1.07   0.32  I
 17  1459 I  0.64  0.83  0.90  0.94  0.97  0.99 I -0.03 -0.00  0.01  0.02  0.02  0.01 I   0.00  13.38   -4.98  4613   1.15   0.38  I
 18  1019 I  0.20  0.25  0.30  0.37  0.50  0.64 I  0.09  0.03 -0.01 -0.03 -0.03 -0.02 I   0.01  23.60    5.45  9408   0.73   0.26  I
 19  1441 I  0.21  0.15  0.18  0.22  0.33  0.47 I  0.14  0.01 -0.02 -0.05 -0.04 -0.04 I   0.01  41.94    4.56  7941   0.54   0.15  I
 20   151 I  0.23  0.41  0.61  0.78  0.88  0.95 I -0.08 -0.10 -0.01  0.06  0.08  0.08 I   0.00  31.71   -6.74  9064   1.43   0.50  I
 21   104 I  0.30  0.50  0.66  0.78  0.88  0.93 I -0.05 -0.05  0.00  0.03  0.06  0.04 I   0.00  19.42   -3.53  8684   1.25   0.45  I
 22   210 I  0.25  0.47  0.64  0.82  0.93  0.98 I -0.10 -0.04 -0.03  0.06  0.10  0.08 I   0.00  35.57   -8.06  8606   1.49   0.52  I
 23  1460 I  0.23  0.36  0.56  0.66  0.80  0.92 I -0.01 -0.07 -0.03  0.02  0.06  0.09 I   0.00  22.77   -2.91  9620   1.20   0.44  I
 24  1422 I  0.44  0.57  0.69  0.77  0.86  0.93 I  0.05 -0.02 -0.00 -0.01  0.01  0.02 I   0.00   4.61    1.81  8237   0.95   0.36  I
 25   473 I  0.38  0.54  0.69  0.80  0.87  0.93 I  0.01 -0.04 -0.00  0.02  0.03  0.03 I   0.00  11.90   -0.62  8314   1.10   0.40  I
 26  1299 I  0.39  0.67  0.79  0.88  0.93  0.96 I -0.09 -0.02  0.02  0.04  0.04  0.03 I   0.00  21.62   -5.33  7142   1.20   0.46  I
 27   755 I  0.53  0.91  0.98  0.99  0.99  1.00 I -0.20  0.04  0.06  0.05  0.03  0.02 I   0.00  42.63  -11.87  3842   1.62   0.53  I
 28    69 I  0.61  0.92  0.97  0.99  0.99  1.00 I -0.15  0.04  0.05  0.04  0.02  0.02 I   0.00  34.63   -9.97  3487   1.49   0.47  I
 29   757 I  0.43  0.76  0.87  0.93  0.97  0.98 I -0.14 -0.00  0.03  0.05  0.05  0.03 I   0.00  24.90   -8.20  5922   1.40   0.49  I
 30  1461 I  0.57  0.91  0.97  0.98  0.99  1.00 I -0.17  0.03  0.06  0.04  0.03  0.02 I   0.00  37.34  -10.78  3724   1.53   0.50  I
 31  1293 I  0.56  0.90  0.96  0.98  0.99  1.00 I -0.16  0.04  0.05  0.04  0.03  0.02 I   0.00  36.43  -10.80  3875   1.51   0.50  I
 32  1297 I  0.64  0.88  0.95  0.96  0.98  0.99 I -0.08  0.01  0.03  0.02  0.02  0.01 I   0.00  21.63   -7.02  3864   1.27   0.40  I
------------------------------------------------------------------------------------------------------------------------------------  ----------
SCORE RANGE    9-17 18-20 21-22 23-24 25-26 27-28                                        LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
MEAN ABILITY -0.40  0.46  0.94  1.37  1.84  2.41           PLUS=TOO MANY RIGHT                       ASSOCIATED WITH ITEM MISFIT
                                                           MINUS=TOO MANY WRONG

MEAN Z-TEST    1.7   0.8   1.2   1.6   1.9   1.8
SD(Z-TEST)    12.8   4.1   3.9   4.5   5.3   4.5
GROUP COUNT   1706  1829  1994  2346  2094  1282

 32 ITEMS  11251 PERSONS WITH MEAN ABILITY =   1.13  AND STD. DEV. =   0.88
```

Table A3 - 8

Item Characteristic Data from FORCAL Item Analyses
Language Arts, Grade 6

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                 ITEM CHARACTERISTIC CURVE                       DEPARTURE FROM EXPECTED ICC                             ITEM FIT STATISTICS
---------------------------------------------------------------------------------------------------------------------------------------------  ---------
SEQ  ITEM I  1ST    2ND    3RD    4TH    5TH    6TH   I  1ST    2ND    3RD    4TH    5TH    6TH   I   LOGIT  BETWN   TOTAL   DEG   DISC   POINT  I
NUM  NAME I GROUP  GROUP  GROUP  GROUP  GROUP  GROUP  I GROUP  GROUP  GROUP  GROUP  GROUP  GROUP  I   BIAS   TTEST   TTEST  FRDM   INDX   BISER  I
---------------------------------------------------------------------------------------------------------------------------------------------  ---------
  1   560 I  0.44   0.88   0.83   0.92   0.96   0.98  I -0.10  -0.04   0.03   0.07   0.07   0.05  I   0.00   27.49   -0.26  5159   1.46   0.47  I
  2  1312 I  0.38   0.57   0.75   0.84   0.89   0.95  I -0.06  -0.06   0.01   0.05   0.06   0.07  I   0.00   23.28   -4.57  6168   1.36   0.45  I
  3   283 I  0.47   0.65   0.73   0.80   0.81   0.88  I  0.04   0.02  -0.00   0.01  -0.02  -0.00  I   0.00    4.08    1.33  6165   0.90   0.32  I
  4   188 I  0.30   0.39   0.57   0.71   0.78   0.90  I -0.00  -0.09  -0.03   0.03   0.05   0.09  I   0.00   23.95   -3.12  7278   1.29   0.42  I
  5   264 I  0.36   0.45   0.49   0.52   0.60   0.72  I  0.13   0.05  -0.02  -0.07  -0.06  -0.03  I   0.01   24.67    6.42  7568   0.81   0.23  I
  6   259 I  0.47   0.55   0.55   0.58   0.58   0.62  I  0.26   0.12  -0.00  -0.05  -0.11  -0.16  I   0.01   44.18   12.92  7481   0.19   0.10  I
  7   529 I  0.16   0.18   0.25   0.29   0.41   0.53  I  0.06  -0.02  -0.02  -0.06   0.00   0.01  I   0.00   16.71   -0.71  6417   0.88   0.25  I
  8  1423 I  0.68   0.65   0.84   0.90   0.92   0.95  I  0.02   0.03   0.01  -0.01  -0.00  -0.01  I   0.00    6.38   -1.65  3854   0.89   0.28  I
  9  1310 I  0.34   0.41   0.44   0.48   0.52   0.56  I  0.15   0.08  -0.00  -0.05  -0.06  -0.12  I   0.01   34.80    9.43  7649   0.34   0.15  I
 10  1311 I  0.69   0.84   0.90   0.92   0.93   0.96  I  0.01   0.01   0.01   0.00  -0.00   0.01  I   0.00    1.60   -2.26  3628   0.94   0.30  I
 11   730 I  0.57   0.75   0.87   0.90   0.95   0.97  I -0.04  -0.03   0.02   0.01   0.05   0.04  I   0.00   17.10   -3.51  4505   1.24   0.39  I
 12   391 I  0.56   0.68   0.71   0.75   0.75   0.83  I  0.13   0.06  -0.02  -0.04  -0.07  -0.05  I   0.01   26.83    6.61  6252   0.52   0.20  I
 13  1277 I  0.36   0.57   0.74   0.85   0.89   0.95  I -0.07   0.05   0.01   0.06   0.06   0.07  I   0.00   23.51   -5.13  6216   1.37   0.46  I
 14  1282 I  0.45   0.52   0.62   0.70   0.73   0.84  I  0.10  -0.01  -0.02  -0.01  -0.03   0.01  I   0.01   16.23    4.09  6964   0.80   0.28  I
 15  1020 I  0.39   0.62   0.76   0.84   0.88   0.93  I -0.06  -0.02   0.02   0.04   0.05   0.04  I   0.00   16.37   -3.79  6075   1.26   0.43  I
 16   945 I  0.22   0.22   0.26   0.29   0.32   0.43  I  0.13   0.04  -0.00  -0.04  -0.08  -0.07  I   0.01   32.58    3.67  6823   0.45   0.14  I
 17   233 I  0.62   0.83   0.91   0.95   0.97   0.98  I -0.01   0.00   0.03   0.03   0.04   0.02  I   0.00   16.87   -5.20  3641   1.27   0.40  I
 18    77 I  0.43   0.69   0.85   0.90   0.95   0.97  I -0.11  -0.03   0.04   0.05   0.06   0.05  I   0.00   25.44   -6.23  5186   1.42   0.47  I
 19   397 I  0.22   0.43   0.63   0.77   0.86   0.93  I -0.11  -0.04  -0.00   0.07   0.10   0.11  I   0.00   33.05   -7.99  7074   1.58   0.51  I
 20  1422 I  0.60   0.70   0.84   0.90   0.92   0.96  I  0.00  -0.01  -0.00   0.02   0.01   0.02  I   0.00    7.78   -1.72  4589   1.07   0.34  I
 21  1002 I  0.50   0.73   0.83   0.89   0.90   0.96  I -0.05  -0.00   0.02   0.03   0.02   0.03  I   0.00   13.62   -3.57  5081   1.20   0.40  I
 22  1003 I  0.66   0.89   0.95   0.97   0.97   0.98  I -0.08   0.02   0.03   0.03   0.02   0.02  I   0.00   20.90   -6.47  3033   1.34   0.41  I
 23  1424 I  0.56   0.78   0.86   0.90   0.92   0.95  I -0.03   0.01   0.02   0.02   0.01   0.02  I   0.00    8.06   -2.83  4573   1.12   0.36  I
 24  1425 I  0.65   0.87   0.93   0.95   0.95   0.98  I -0.07   0.02   0.03   0.02   0.01   0.02  I   0.00   17.10   -5.33  3313   1.26   0.39  I
 25    87 I  0.81   0.98   0.99   1.00   0.99   1.00  I -0.07   0.03   0.02   0.02   0.01   0.01  I   0.00   23.73   -6.41  1429   1.49   0.38  I
 26    83 I  0.78   0.96   0.98   0.99   0.99   1.00  I -0.08   0.03   0.02   0.02   0.02   0.01  I   0.00   22.41   -6.46  1732   1.43   0.39  I
 27   984 I  0.76   0.96   0.98   0.99   1.00   1.00  I -0.09   0.03   0.02   0.03   0.02   0.01  I   0.00   25.37   -6.92  1825   1.49   0.41  I
 28  1426 I  0.45   0.60   0.68   0.74   0.79   0.84  I  0.07   0.03  -0.02  -0.01  -0.00  -0.02  I   0.01   11.70    2.85  6673   0.80   0.30  I
 29   809 I  0.49   0.66   0.76   0.78   0.84   0.90  I  0.03   0.01   0.01  -0.03   0.00   0.01  I   0.00    5.26    0.61  5955   0.93   0.33  I
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SCORE RANGE    8-17  18-20  21-22  23-23  24-24  25-26                                           LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
MEAN ABILITY -0.03   0.77   1.25   1.57   1.83   2.29         PLUS=TOO MANY RIGHT                            ASSOCIATED WITH ITEM MISFIT
                                                              MINUS=TOO MANY WRONG

MEAN Z-TEST    0.2    0.8    1.2    1.2    1.3    2.1
SD(Z-TEST)     8.1    4.1    2.3    3.1    4.0    6.2
GROUP COUNT   1418   1591   1659    945    963   1762

  29 ITEMS    8358 PERSONS WITH MEAN ABILITY =   1.39  AND STD. DEV. =    0.80
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Table A3 - 9

Item Characteristic Data from FORCAL Item Analyses
Language Arts, Grade 9

		ITEM CHARACTERISTIC CURVE						DEPARTURE FROM EXPECTED ICC						ITEM FIT STATISTICS					
SEQ NUM	ITEM NAME	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	LOGIT BIAS	MEAN TEST	TOTAL TEST	DEG FRDM	DISC INDX	POINT BISER
1	188	0.51	0.73	0.81	0.90	0.95	0.98	-0.05	-0.02	-0.01	0.03	0.04	0.03	0.00	15.24	-3.58	3454	1.23	0.45
2	199	0.64	0.79	0.84	0.84	0.87	0.90	0.10	0.05	0.03	-0.03	-0.04	-0.04	0.01	20.61	3.00	3516	0.63	0.23
3	256	0.36	0.54	0.64	0.84	0.91	0.97	-0.05	-0.08	-0.02	0.05	0.06	0.06	0.00	21.63	-4.30	4467	1.32	0.48
4	540	0.35	0.43	0.52	0.67	0.76	0.89	0.07	-0.04	-0.05	-0.00	-0.00	[illegible]	0.00	13.86	1.08	5294	0.99	0.37
5	529	0.13	0.20	0.28	0.39	0.58	0.77	0.00	-0.05	-0.05	-0.04	0.04	0.10	0.00	17.49	-3.53	5561	1.23	0.41
6	1421	0.20	0.32	0.36	0.47	0.66	0.83	0.02	-0.01	-0.06	-0.05	0.03	0.09	0.00	16.05	-1.33	5046	1.11	0.46
7	1427	0.64	0.84	0.94	0.95	0.98	0.99	-0.06	-0.01	0.04	0.02	0.03	0.01	0.00	15.80	-4.70	2371	1.24	0.41
8	119	0.57	0.76	0.86	0.90	0.96	0.98	-0.03	-0.02	0.01	0.01	0.04	0.02	0.00	11.47	-3.26	3147	1.16	0.40
9	1005	0.74	0.90	0.95	0.98	0.99	0.99	-0.05	[illegible]	0.02	0.03	0.02	0.01	0.00	14.20	-4.43	1748	1.24	0.36
10	612	0.67	0.88	0.91	0.95	0.97	0.98	-0.04	[illegible]	0.00	0.01	0.02	0.01	0.00	8.76	-3.44	2310	1.12	0.35
11	423	0.32	0.33	0.32	0.37	0.48	0.63	0.18	[illegible]	-0.02	-0.07	-0.07	-0.05	0.01	[illegible]	7.00	5587	0.44	0.18
12	1108	0.21	0.24	0.30	0.39	0.46	0.57	0.04	0.02	0.00	0.00	-0.04	-0.06	0.01	14.95	3.88	5452	0.67	0.24
13	376	0.25	0.44	0.55	0.71	0.80	0.92	-0.04	-0.04	-0.03	0.03	0.03	0.07	0.00	16.70	-3.13	5257	1.24	0.46
14	271	0.71	0.93	0.97	0.98	0.99	1.00	-0.08	0.02	0.04	0.02	0.02	0.01	0.00	14.01	-5.65	1671	1.33	0.40
15	268	0.70	0.91	0.98	0.99	1.00	1.00	-0.10	0.01	0.04	0.03	0.02	0.01	0.00	22.54	-6.40	1098	1.41	0.44
16	269	0.32	0.53	0.71	0.83	0.91	0.96	-0.08	-0.07	0.00	0.05	0.06	0.06	0.00	21.68	-5.32	4539	1.36	0.50
17	340	0.23	0.35	0.60	0.73	0.86	0.96	-0.08	-0.15	-0.00	0.04	0.08	0.10	0.00	28.54	-6.73	5171	1.48	0.53
18	732	0.54	0.74	0.82	0.86	0.90	0.94	0.01	0.02	0.02	0.01	-0.00	-0.00	0.00	0.18	-0.31	3654	0.96	0.34
19	185	0.63	0.84	0.89	0.94	0.96	0.98	-0.04	0.02	0.01	0.02	0.01	0.01	0.00	8.04	-3.66	2058	1.12	0.38
20	537	0.25	0.32	0.33	0.40	0.50	0.63	0.12	0.06	-0.02	-0.04	-0.05	-0.05	0.01	26.27	5.26	5579	0.59	0.23
21	536	0.13	0.10	0.10	0.09	0.09	0.10	0.11	0.06	0.03	-0.01	-0.06	-0.13	0.00	45.08	-2.62	2728	-0.01	-0.03
22	530	0.21	0.27	[illegible]	0.37	0.47	0.61	0.04	0.04	0.01	-0.03	-0.05	-0.04	0.01	[illegible]	3.95	5503	0.67	0.25
23	624	0.55	0.82	[illegible]	0.94	0.96	0.99	-0.04	0.01	0.03	0.03	0.02	0.02	0.00	17.57	-5.19	2019	1.28	0.44
24	1254	0.63	0.85	[illegible]	0.95	0.98	0.99	-0.06	0.01	0.02	0.02	0.02	0.02	0.00	16.82	-4.65	2406	1.24	0.41
25	438	0.36	0.61	[illegible]	0.84	0.89	0.94	-0.07	-0.02	0.02	0.04	0.03	0.02	0.00	13.23	[illegible]	4368	[illegible]	0.46
26	419	0.31	0.43	0.49	0.54	0.59	0.67	0.11	0.08	0.04	-0.01	-0.07	-0.10	0.01	25.59	7.51	5022	0.51	0.24
27	561	0.34	0.63	0.72	0.85	0.89	0.95	-0.08	-0.01	-0.00	0.05	0.03	0.04	0.00	16.30	-4.31	4369	1.27	0.47
28	498	0.35	0.64	0.77	0.81	0.90	0.95	-0.09	0.01	0.04	[illegible]	0.04	0.04	0.00	15.16	-3.67	4321	1.24	0.46
29	87	0.82	0.97	0.98	0.99	0.99	1.00	-0.05	0.02	0.02	0.02	0.01	0.01	0.00	16.00	-4.94	1035	1.31	0.34
30	750	0.23	0.23	0.24	0.28	0.35	0.43	0.15	0.06	0.01	-0.03	-0.06	-0.12	0.01	35.06	5.05	5054	0.37	0.14
31	70	0.79	[illegible]	0.93	0.95	0.97	0.98	0.01	0.01	0.01	-0.00	0.00	0.00	0.00	-0.06	-2.59	1824	0.96	0.27
32	159	0.65	0.85	0.90	0.94	0.96	0.99	-0.03	0.01	[illegible]	0.01	0.01	0.02	0.00	8.07	-3.18	2515	1.12	0.36
33	986	[illegible]	0.83	0.85	0.89	0.94	0.97	0.04	0.02	-0.01	-0.01	0.00	0.01	0.00	5.23	-0.56	2848	0.90	0.30

SCORE RANGE	9-18	19-21	22-23	24-25	26-27	28-29
MEAN ABILITY	-0.31	0.55	0.97	1.38	1.83	2.3[illegible]
MEAN Z-TEST	1.0	0.6	0.8	1.0	1.4	1.6
SD(Z-TEST)	7.9	[illegible]	2.3	2.8	3.7	4.7
GROUP COUNT	1033	948	948	1160	1239	1017

PLUS=TOO MANY RIGHT
MINUS=TOO MANY WRONG

LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
ASSOCIATED WITH ITEM MISFIT

33 ITEMS 6365 PERSONS WITH MEAN ABILITY = 1.29 AND STD. DEV. = 0.93

Table A3 - 10

Item Characteristic Data from FORCAL Item Analyses
Language Arts, Grade 11

		ITEM CHARACTERISTIC CURVE						DEPARTURE FROM EXPECTED ICC						ITEM FIT STATISTICS					
SEQ NUM	ITEM NAME	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	LOGIT BIAS	BETWN TTEST	TOTAL TTEST	DEG FRDM	DISC INDX	POINT BISER
1	1420	0.19	0.20	0.25	0.39	0.58	0.71	0.07	-0.04	-0.07	-0.02	0.05	0.07	0.00	15.65	-2.18	3424	1.03	0.31
2	255	0.54	0.76	0.87	0.88	0.95	0.97	-0.00	-0.04	0.01	0.01	0.04	0.02	0.00	8.89	-1.74	2473	1.12	0.37
3	1421	0.31	0.44	0.54	0.76	0.86	0.92	-0.01	-0.08	-0.04	0.05	0.06	0.06	0.00	13.97	-2.60	3603	1.24	0.42
4	445	0.22	0.27	0.33	0.39	0.52	0.62	0.10	0.02	-0.00	-0.04	-0.02	-0.03	0.01	14.59	1.07	3947	0.71	0.24
5	168	0.82	0.95	0.98	0.98	0.99	0.99	-0.03	0.01	0.02	0.01	0.01	0.00	0.00	7.04	-3.76	821	1.18	0.29
6	389	0.78	0.82	0.86	0.87	0.89	0.91	0.16	0.02	0.01	-0.03	-0.05	-0.05	0.01	22.02	2.77	2101	0.44	0.13
7	355	0.40	0.50	0.64	0.71	0.79	0.90	0.07	-0.03	0.01	-0.01	-0.01	0.03	0.01	7.62	1.46	3564	0.89	0.31
8	746	0.66	0.84	0.90	0.94	0.98	1.00	-0.03	-0.01	0.01	0.01	0.03	0.03	0.00	9.82	-3.00	1710	1.19	0.36
9	460	0.36	0.57	0.75	0.88	0.95	0.98	-0.09	-0.04	-0.00	0.07	0.07	0.06	0.00	21.61	-4.79	2477	1.44	0.48
10	398	0.52	0.74	0.89	0.94	0.97	0.98	-0.10	-0.01	0.03	0.04	0.04	0.02	0.00	15.56	-4.10	2072	1.34	0.43
11	931	0.40	0.52	0.63	0.71	0.82	0.87	0.08	-0.01	-0.01	-0.01	0.01	0.00	0.01	6.78	1.39	3553	0.86	0.31
12	714	0.29	0.34	0.40	0.47	0.60	0.69	0.13	0.03	-0.01	-0.04	-0.03	-0.04	0.01	17.42	2.73	4033	0.64	0.23
13	484	0.21	0.19	0.24	0.32	0.43	0.62	0.12	-0.00	-0.03	-0.03	0.04	0.04	0.00	20.26	-0.48	3761	0.72	0.21
14	478	0.20	0.16	0.16	0.19	0.23	0.28	0.15	0.05	0.02	-0.03	-0.08	-0.13	0.00	33.70	-0.54	3088	0.17	0.04
15	538	0.24	0.30	0.31	0.37	0.48	0.59	0.12	0.06	-0.01	-0.05	-0.05	-0.05	0.01	21.04	2.37	3928	0.54	0.19
16	1021	0.55	0.85	0.91	0.96	0.98	0.99	-0.12	0.02	0.02	0.04	0.03	0.03	0.00	18.40	-5.26	1811	1.41	0.45
17	982	0.30	0.39	0.42	0.51	0.63	0.70	0.12	0.05	-0.02	-0.03	-0.03	-0.05	0.01	16.45	2.91	4026	0.64	0.25
18	980	0.45	0.61	0.67	0.76	0.81	0.92	0.08	0.02	-0.01	-0.01	-0.03	0.03	0.01	9.11	1.72	3332	0.82	0.30
19	1008	0.66	0.93	0.98	0.98	0.99	1.00	-0.12	0.03	0.05	0.02	0.02	0.02	0.00	20.01	-5.81	1219	1.46	0.45
20	528	0.23	0.40	0.56	0.72	0.82	0.91	-0.05	-0.07	-0.02	0.05	0.05	0.07	0.00	14.27	-3.52	3768	1.31	0.45
21	296	0.25	0.42	0.57	0.70	0.84	0.90	-0.04	-0.06	-0.02	0.02	0.07	0.06	0.00	12.76	-3.17	3750	1.27	0.44
22	691	0.40	0.70	0.74	0.80	0.86	0.88	-0.02	0.06	0.02	0.00	-0.00	-0.03	0.00	5.92	-0.92	3101	0.96	0.36
23	566	0.50	0.73	0.79	0.83	0.88	0.95	0.02	0.03	0.02	-0.00	-0.02	0.02	0.00	3.81	-0.87	2764	0.93	0.34
24	563	0.38	0.67	0.76	0.82	0.85	0.88	-0.03	0.04	0.04	0.02	-0.02	-0.03	0.00	7.16	-1.20	3135	0.94	0.37
25	491	0.42	0.83	0.92	0.97	0.99	0.99	-0.21	0.02	0.06	0.08	0.05	0.03	0.00	27.95	-8.03	2029	1.64	0.56
26	525	0.40	0.70	0.87	0.88	0.94	0.94	-0.10	-0.01	0.04	0.04	0.04	0.01	0.00	13.42	-4.11	2704	1.28	0.45
27	526	0.54	0.82	0.88	0.91	0.95	0.97	-0.06	0.03	0.03	0.02	0.01	0.01	0.00	8.39	-3.33	2122	1.16	0.39
28	209	0.65	[illegible]	0.96	0.97	0.99	1.00	-0.11	0.03	0.04	0.02	0.03	0.02	0.00	18.65	-5.64	1320	1.44	0.44
29	40	0.63	0.81	0.96	0.93	0.94	0.97	-0.00	0.01	-0.00	0.03	-0.00	0.01	0.00	3.45	-2.34	2016	1.03	0.34
30	224	0.74	0.90	0.93	0.95	0.96	0.97	-0.00	0.02	0.02	0.00	-0.00	-0.00	0.00	1.87	-2.96	1424	0.96	0.29
31	218	0.78	0.95	0.98	0.98	1.00	1.00	-0.06	0.02	0.02	0.01	0.02	0.01	0.00	13.24	-4.91	845	1.34	0.37
32	135	0.80	0.96	0.98	0.99	0.99	1.00	-0.06	0.02	0.02	0.01	0.01	0.01	0.00	11.92	-4.66	811	1.31	0.35

SCORE RANGE	9-18	19-21	22-23	24-25	26-27	28-28
MEAN ABILITY	-0.22	0.67	1.09	1.50	1.98	2.42
MEAN Z-TEST	0.5	0.4	0.8	1.0	1.2	0.9
SD(Z-TEST)	6.4	2.3	2.1	2.6	3.1	2.5
GROUP COUNT	649	664	777	936	902	400

PLUS=TOO MANY RIGHT
MINUS=TOO MANY WRONG

LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
ASSOCIATED WITH ITEM MISFIT

32 ITEMS 4328 PERSONS WITH MEAN ABILITY = 1.38 AND STD. DEV. = 0.40

Table A3 - 11

Item Characteristic Data from FORCAL Item Analyses
Mathematics, Grade 3

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                 ITEM CHARACTERISTIC CURVE                      DEPARTURE FROM EXPECTED ICC                          ITEM FIT STATISTICS
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SEQ  ITEM I  1ST   2ND   3RD   4TH   5TH   6TH  I  1ST   2ND   3RD   4TH   5TH   6TH  I  LOGIT  BETWN  TOTAL   DEG   DISC   POINT  I
NUM  NAME I GROUP GROUP GROUP GROUP GROUP GROUP I GROUP GROUP GROUP GROUP GROUP GROUP I   BIAS  T-TEST T-TEST  FROM  INDX   BISER  I
----------------------------------------------------------------------------------------------------------------------------------------  ---------
  1  1710 I  0.45  0.55  0.65  0.73  0.83  0.92 I  0.06 -0.01 -0.02 -0.03  0.00  0.03 I   0.00  14.34   0.73  9191  0.93   0.34  I
  2  1418 I  0.68  0.74  0.87  0.92  0.94  0.97 I  0.02 -0.00  0.01  0.01  0.00  0.00 I   0.00   2.26  -4.39  5793  0.97   0.30  I
  3  1703 I  0.25  0.30  0.34  0.43  0.54  0.72 I  0.09  0.03 -0.03 -0.05 -0.04  0.01 I   0.00  24.79   3.56 10329  0.77   0.28  I
  4  1614 I  0.49  0.56  0.62  0.70  0.78  0.84 I  0.12  0.02 -0.03 -0.04 -0.04  0.01 I   0.01  25.48   5.05  9374  0.72   0.27  I
  5  1704 I  0.51  0.63  0.70  0.77  0.83  0.90 I  0.07  0.03 -0.01 -0.03 -0.02 -0.01 I   0.00  15.55   2.21  8681  0.80   0.30  I
  6  1711 I  0.32  0.42  0.50  0.58  0.69  0.82 I  0.07  0.02 -0.02 -0.04 -0.03  0.00 I   0.00  17.11   3.59 10308  0.82   0.32  I
  7   719 I  0.27  0.35  0.40  0.47  0.57  0.69 I  0.09  0.05 -0.00 -0.05 -0.04 -0.04 I   0.01  24.70   5.65 10411  0.68   0.27  I
  8  1712 I  0.27  0.31  0.35  0.41  0.48  0.61 I  0.13  0.06 -0.00 -0.04 -0.08 -0.08 I   0.01  35.71   7.88 10244  0.50   0.21  I
  9  1705 I  0.34  0.53  0.72  0.81  0.88  0.93 I -0.07 -0.04  0.04  0.04  0.04  0.03 I   0.00  20.91  -6.38  9022  1.26   0.46  I
 10  1615 I  0.46  0.58  0.72  0.81  0.91  0.95 I  0.00 -0.04 -0.00 [illegible] 0.04  0.03 I   0.00  15.08  -3.73  8472  1.12   0.40  I
 11  1616 I  0.38  0.51  0.62  0.70  0.82  0.90 I  0.03 -0.01 -0.01 -0.02  0.02  0.02 I   0.00   8.49  -0.48  9601  0.99   0.37  I
 12  1713 I  0.46  0.71  0.83  0.90  0.94  0.97 I -0.09  0.00  0.03  0.04  0.04  0.03 I   0.00  22.72  -7.95  7316  1.28   0.44  I
 13  1714 I  0.42  0.66  0.81  0.89  0.93  0.96 I -0.10 -0.01  0.04  0.05  0.04  0.02 I   0.00  25.17  -8.34  7747  1.31   0.46  I
 14  1715 I  0.41  0.69  0.86  0.93  0.96  0.98 I -0.14 -0.02  0.06  0.07  0.05  0.03 I   0.00  34.98 -11.28  7199  1.46   0.50  I
 15  1716 I  0.35  0.55  0.74  0.86  0.93  0.96 I -0.10 -0.06  0.02  0.06  0.07  0.04 I   0.00  24.44  -9.38  8599  1.39   0.50  I
 16  1717 I  0.23  0.39  0.56  0.73  0.85  0.93 I -0.08 -0.07 -0.02  0.05  0.08  0.08 I   0.00  29.26  -8.72  9968  1.40   0.51  I
 17  1718 I  0.29  0.46  0.67  0.80  0.88  0.94 I -0.08 -0.08  0.02  0.05  0.07  0.05 I   0.00  27.01  -8.26  9391  1.36   0.49  I
 18    17 I  0.65  0.84  0.93  0.97  0.98  0.99 I -0.08 -0.00  0.04  0.04  0.02  0.02 I   0.00  25.25  -9.88  4831  1.32   0.40  I
 19  1719 I  0.35  0.51  0.63  0.75  0.86  0.92 I -0.01 -0.03 -0.01  0.01  0.04  0.04 I   0.00  13.77  -3.87  9426  1.15   0.42  I
 20  1720 I  0.27  0.51  0.69  0.81  0.89  0.94 I -0.11 -0.04  0.03  0.06  0.06  0.05 I   0.00  28.76  -9.21  9275  1.39   0.51  I
 21   242 I  0.45  0.69  0.79  0.88  0.93  0.96 I -0.07  0.00  0.01  0.03  0.04  0.03 I   0.00  19.77  -7.50  7682  1.24   0.44  I
 22  1721 I  0.84  0.94  0.96  0.98  0.99  0.99 I -0.02  0.02  0.01  0.01  0.01  0.00 I   0.00  10.35  -8.28  2741  1.11   0.25  I
 23  1617 I  0.21  0.43  0.54  0.70 [illegible] 0.89 I -0.07 -0.01 -0.02  0.04  0.05  0.05 I   0.00  20.55  -5.93 10117  1.27   0.47  I
 24  1706 I  0.68  0.81  0.85  0.69  0.93  0.97 I  0.03  0.03 -0.01 -0.01 -0.00  0.01 I   0.00   6.90  -3.41  5942  0.91   0.28  I
 25  161[illegible] I  0.45  0.62  0.65  0.74  0.78  0.85 I  0.06  0.07 -0.01 -0.01 -0.04 -0.04 I   0.01  20.16   3.68  9257  0.73   0.29  I
 26  161[illegible] I  0.44  0.65  0.75  0.84  0.89  0.94 I -0.03  0.01  0.01  0.02  0.02  0.02 I   0.00   9.54  -4.81  8293  1.12   0.41  I
 27  1967 I  0.36  0.47  0.52  0.56  0.59  0.69 I  0.13  0.10  0.03 -0.04 -0.10 -0.11 I   0.01  38.50  11.09 10377  0.42   0.20  I
 28  1707 I  0.45  0.61  0.72  0.81  0.87  0.94 I  0.00 -0.00 -0.00  0.01  0.01  0.02 I   0.00   3.94  -2.15  8562  1.04   0.37  I
 29  1709 I  0.70  0.85  0.90  0.93  0.95  0.96 I -0.00  0.02  0.02  0.00  0.00 -0.01 I   0.00   5.08  -5.49  5227  0.98   0.29  I
 30  170[illegible] I  0.14  0.16  0.19  0.23  0.29  0.37 I  0.07  0.05  0.01 -0.02 -0.05 -0.11 I   0.00  32.09   0.88  8255  0.55   0.17  I
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SCORE RANGE    9-15 16-18 19-21 22-23 24-25 26-27                                 LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
MEAN ABILITY  -0.38  0.31  0.79  1.23  1.66  2.22          PLUS=TOO MANY RIGHT                ASSOCIATED WITH ITEM MISFIT
                                                           MINUS=TOO MANY WRONG
MEAN Z-TEST     0.3   0.4   0.8   1.1   1.5   1.7
SD(Z-TEST)      8.6   3.6   2.6   3.9   5.1   4.9
GROUP COUNT    2141  1667  2308  1890  1924  1722

  30 ITEMS  11652 PERSONS WITH MEAN ABILITY =   1.04  AND STD. DEV. =   0.99
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Table A3 - 12

Item Characteristic Data from FORCAL Item Analyses
Mathematics, Grade 5

		ITEM CHARACTERISTIC CURVE						DEPARTURE FROM EXPECTED ICC						ITEM FIT STATISTICS					
SEQ NUM	ITEM NAME	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	LOGIT BIAS	BETWN FTEST	TOTAL FTEST	DEG FROM	DISC INDX	POINT BISER
1	363	0.35	0.49	0.54	0.68	0.74	0.66	0.00	-0.00	-0.00	0.01	-0.00	0.01	0.00	-0.42	-0.27	8249	1.02	0.37
2	746	0.41	0.55	0.65	0.70	0.78	0.88	0.02	0.01	0.01	-0.01	-0.00	0.00	0.00	1.15	0.22	7921	0.96	0.35
3	1653	0.10	0.12	0.17	0.22	0.28	0.49	0.03	-0.01	-0.02	-0.02	-0.04	0.02	0.00	10.38	-2.06	6835	0.97	0.31
4	377	0.12	0.19	0.25	0.35	0.45	0.73	-0.02	-0.04	-0.05	-0.03	-0.01	0.10	0.00	21.61	-5.24	8154	1.28	0.44
5	1652	0.17	0.20	0.26	0.33	0.37	0.57	0.05	0.00	-0.00	-0.00	-0.05	-0.01	0.00	13.75	1.72	7837	0.85	0.30
6	1657	0.36	0.56	0.67	0.71	0.79	0.66	-0.03	0.02	0.04	0.00	0.02	-0.01	0.00	7.29	-1.08	7980	1.02	0.37
7	233	0.54	0.72	0.81	0.82	0.84	0.89	0.01	0.04	0.05	0.01	-0.02	-0.03	0.00	14.74	-0.97	6046	0.85	0.29
8	230	0.56	0.77	0.86	0.89	0.92	0.95	-0.06	0.02	0.04	0.03	0.02	0.01	0.00	13.95	-5.84	5063	1.14	0.35
9	1659	0.39	0.50	0.57	0.66	0.74	0.86	0.04	-0.00	-0.02	-0.01	-0.01	0.01	0.00	8.11	1.14	8221	0.95	0.34
10	1963	0.70	0.89	0.95	0.97	0.99	0.99	-0.09	0.02	0.04	0.03	0.03	0.02	0.00	24.82	-9.04	3511	1.37	0.35
11	1660	0.48	0.69	0.74	0.87	0.91	0.95	-0.07	-0.01	0.02	0.04	0.04	0.02	0.00	17.81	-6.38	6438	1.24	0.41
12	392	0.36	0.48	0.57	0.69	0.77	0.88	0.06	-0.03	-0.03	0.01	0.02	0.03	0.00	9.29	-1.94	8197	1.10	0.40
13	1651	0.16	0.21	0.28	0.34	0.46	0.66	0.02	-0.02	-0.02	-0.04	-0.01	0.04	0.00	10.26	-0.93	8154	1.04	0.37
14	1702	0.24	0.39	0.49	0.61	0.72	0.86	-0.04	-0.03	-0.02	0.01	0.03	0.05	0.00	15.72	-3.61	8555	1.23	0.44
15	1130	0.38	0.59	0.72	0.85	0.91	0.96	-0.10	-0.05	0.00	0.07	0.07	0.05	0.00	28.82	-8.25	7141	1.42	0.48
16	1396	0.27	0.32	0.40	0.51	0.64	0.79	0.04	-0.04	-0.04	-0.02	0.02	0.03	0.00	13.08	-0.09	8649	1.04	0.38
17	319	0.25	0.44	0.55	0.67	0.80	0.89	-0.08	-0.03	-0.02	0.02	0.07	0.06	0.00	22.32	-5.94	8359	1.33	0.48
18	1668	0.30	0.46	0.58	0.70	0.78	0.88	-0.04	-0.03	-0.01	0.03	0.04	0.04	0.00	14.65	-3.78	8263	1.21	0.43
19	1669	0.23	0.36	0.50	0.64	0.76	0.87	-0.05	-0.07	-0.02	0.03	0.07	0.06	0.00	22.48	-5.49	8540	1.32	0.47
20	1661	0.53	0.73	0.82	0.86	0.91	0.95	-0.05	0.01	0.03	0.02	0.02	0.01	0.00	11.67	-5.36	6134	1.14	0.37
21	1666	0.73	0.89	0.93	0.95	0.97	0.98	-0.04	0.03	0.02	0.02	0.02	0.00	0.00	13.17	-7.39	3685	1.13	0.29
22	270	0.29	0.46	0.59	0.69	0.79	0.89	-0.05	-0.03	0.00	0.02	0.04	0.04	0.00	15.78	-3.99	8257	1.23	0.44
23	274	0.27	0.34	0.42	0.52	0.60	0.74	0.05	-0.00	-0.01	-0.01	-0.01	-0.01	0.00	8.23	2.27	8047	0.90	0.34
24	1662	0.61	0.81	0.91	0.95	0.96	0.98	-0.09	0.00	0.05	0.05	0.03	0.02	0.00	23.57	-8.53	4718	1.32	0.38
25	1670	0.48	0.54	0.59	0.61	0.66	0.73	0.16	0.06	0.02	-0.04	-0.06	-0.10	0.01	36.40	9.86	8364	0.41	0.19
26	1671	0.74	0.88	0.92	0.94	0.96	0.97	-0.02	0.02	0.02	0.02	0.01	0.00	0.00	7.95	-6.50	3773	1.06	0.27
27	1672	0.68	0.76	0.80	0.81	0.85	0.88	0.10	0.04	0.01	-0.03	-0.03	-0.05	0.01	26.50	2.00	6150	0.57	0.18
28	1658	0.43	0.65	0.76	0.85	0.91	0.97	-0.08	-0.02	0.01	0.04	0.05	0.05	0.00	23.55	-7.39	6766	1.34	0.45
29	521	0.59	0.[illegible]6	0.67	0.66	0.72	0.77	0.18	0.10	0.01	-0.06	-0.08	-0.11	0.01	42.56	10.08	7768	0.28	0.13
30	1663	0.31	0.39	0.41	0.45	0.52	0.61	0.12	0.08	0.01	-0.03	-0.05	-0.11	0.01	33.69	9.79	8589	0.47	0.21

SCORE RANGE	9-14	15-17	18-19	20-21	22-23	24-27
MEAN ABILITY	-0.47	0.17	0.55	0.69	1.26	1.93
MEAN Z-TEST	-0.1	0.2	0.5	0.6	1.0	1.1
SD(Z-TEST)	6.7	3.2	2.4	2.9	3.7	6.4
GROUP COUNT	1789	1687	[illegible]19	1397	1377	2192

PLUS=TOO MANY RIGHT
MINUS=TOO MANY WRONG

LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
ASSOCIATED WITH ITEM MISFIT

30 ITEMS 9761 PERSONS WITH MEAN ABILITY = 0.79 AND STD. DEV. = 0.95

Table A3 - 13

Item Characteristic Data from FORCAL Item Analyses
Mathematics, Grade 7

SEQ NUM	ITEM NAME	ITEM CHARACTERISTIC CURVE 1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	DEPARTURE FROM EXPECTED ICC 1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	ITEM FIT STATISTICS LOGIT BIAS	WITHIN TTEST	TOTAL TTEST	DEG FRDM	DISC INDX	POINT BISER
1	206	0.64	0.83	0.90	0.92	0.94	0.97	-0.04	0.03	0.03	0.01	0.00	0.01	0.00	9.27	-5.22	3165	1.09	0.34
2	167	0.44	0.59	0.72	0.81	0.88	0.96	-0.02	-0.03	-0.01	0.01	0.03	0.04	0.00	11.03	[illegible]	[illegible]	1.16	0.43
3	195	0.46	0.62	0.70	0.77	0.86	0.92	0.02	0.02	-0.01	-0.02	0.01	0.01	0.00	2.33	-1.08	4814	0.97	0.36
4	211	0.77	0.88	0.91	0.91	0.92	0.94	0.05	0.05	0.02	-0.01	-0.03	-0.03	0.00	18.59	-2.49	2777	0.69	0.19
5	298	0.55	0.69	0.75	0.82	0.85	0.90	0.06	0.04	0.00	-0.01	-0.02	-0.03	0.00	11.70	0.45	4474	0.78	0.29
6	147	0.57	0.64	0.78	0.83	0.89	0.95	0.04	0.00	-0.00	-0.02	-0.00	0.02	0.00	5.43	-1.44	4148	0.40	0.33
7	279	0.33	0.51	0.61	0.68	0.73	0.83	0.02	0.04	0.03	0.00	-0.03	-0.03	0.00	8.87	1.13	5545	0.88	0.36
8	425	0.33	0.44	0.57	0.66	0.77	0.84	0.02	-0.02	-0.01	-0.02	0.01	0.04	0.00	7.45	-1.69	5558	1.07	0.42
9	1957	0.28	0.53	0.73	0.86	0.92	0.97	-0.15	-0.06	0.04*	0.07	0.08	0.06	0.00	24.65	-4.60	4848	1.49	0.55
10	1966	0.30	0.43	0.59	0.68	0.80	0.91	-0.02	-0.04	-0.00	-0.00	0.03	0.05	0.00	11.52	-3.57	5513	1.17	0.45
11	1623	0.51	0.55	0.54	0.56	0.61	0.70	0.23	0.13	0.00	-0.08	-0.11	-0.13	0.01	43.02	12.17	5702	0.18	0.13
12	1956	0.20	0.37	0.54	0.68	0.77	0.88	-0.07	-0.04	0.01	0.05	0.05	0.03	0.00	14.90	-4.92	5724	1.24	0.48
13	501	0.82	0.94	0.96	0.97	0.98	0.99	-0.03	0.03	0.02	0.01	0.01	-0.00	0.00	8.70	-6.22	1661	1.05	0.25
14	322	0.64	0.83	0.89	[illegible]	0.94	0.98	-0.04	0.03	0.02	0.01	0.01	0.01	0.00	8.67	-5.36	3131	1.10	0.34
15	137	0.35	0.52	0.60	[illegible]	0.77	0.87	0.01	0.02	-0.01	0.03	-0.02	-0.00	0.00	3.15	-0.38	5404	0.97	0.38
16	1958	0.22	0.28	0.30	0.32	0.31	0.31	0.14	0.14	0.08	0.02	-0.08	-0.23	0.01	47.41	8.87	5312	0.08	0.07
17	1675	0.16	0.39	0.60	0.81	0.90	0.97	-0.18	-0.13	-0.01	0.11	0.13	0.11	0.00	38.93	-13.36	[illegible]	1.71	0.63
18	1676	0.67	0.86	0.95	0.97	0.99	[illegible]	-0.09	0.00	0.04	0.04	0.04	0.02	0.00	21.68	-7.81	2430	1.35	0.39
19	1962	0.40	[illegible]	0.98	0.97	0.98	[illegible]	-0.00	0.02	0.01	-0.01	-0.00	0.00	0.00	6.64	-5.70	3105	0.96	0.17
20	1678	0.08	0.13	0.23	0.43	0.64	[illegible]	-0.07	-0.11	-0.11	[illegible]	0.10	0.16	0.00	34.21	-12.12	5833	1.59	0.57
21	1679	0.23	0.29	0.43	0.61	0.79	0.93	[illegible]	-0.10	[illegible]	-0.01	0.09	0.11	0.00	28.44	-7.86	5772	1.42	0.53
22	1680	0.36	0.60	0.77	0.87	0.92	0.96	-0.11	-0.03	0.04	[illegible]	0.06	0.04	0.00	22.30	-7.46	4626	1.35	0.49
23	1681	0.41	0.47	0.55	0.62	0.68	0.81	0.12	0.04	-0.01	-0.03	-0.06	-0.03	0.01	20.02	4.67	5650	0.68	0.29
24	1682	0.19	0.32	0.48	0.63	0.76	0.89	-0.06	-0.07	-0.02	0.02	0.06	0.08	0.00	20.20	-6.60	5790	1.34	0.51
25	1683	0.22	0.47	0.66	0.80	0.89	0.94	-0.15	-0.05	0.02	0.07	0.04	0.06	0.00	28.33	-9.32	5262	1.48	0.55
26	1684	0.26	0.28	0.34	0.42	0.54	0.71	0.04	0.02	-0.02	-0.04	-0.02	0.00	0.00	8.51	-0.12	5857	0.91	0.36
27	1959	0.19	0.26	0.30	0.39	0.41	0.62	0.07	0.05	0.00	-0.01	-0.08	-0.03	0.01	17.70	1.76	5733	0.74	0.30
28	1960	0.26	0.31	0.45	0.51	0.60	0.74	0.06	-0.06	0.02	-0.02	-0.03	-0.02	0.00	10.42	1.84	5895	0.84	0.35
29	1685	0.45	0.59	0.68	0.76	0.78	0.85	0.06	0.04	0.02	0.01	-0.04	-0.04	0.01	13.92	2.33	5147	0.76	0.31
30	1686	0.30	0.41	0.50	0.59	0.65	0.79	0.05	0.03	0.01	-0.01	-0.04	-0.02	0.01	9.62	2.11	5811	0.83	0.35

SCORE RANGE	9-14	15-17	18-20	21-22	23-24	25-27
MEAN ABILITY	-0.45	0.20	0.68	1.11	1.50	2.15
MEAN Z-TEST	0.1	0.4	0.6	0.6	0.8	1.2
SD(Z-TEST)	7.2	4.3	2.7	2.7	4.2	6.8
GROUP COUNT	1184	920	1158	911	971	1463

PLUS=TOO MANY RIGHT
MINUS=TOO MANY WRONG

LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
ASSOCIATED WITH ITEM MISFIT

30 ITEMS 6636 PERSONS WITH MEAN ABILITY = 1.08 AND STD. DEV. = [illegible]

Table A3 - 14

Item Characteristic Data from FORCAL Item Analyses
Mathematics, Grade 11

		ITEM CHARACTERISTIC CURVE						DEPARTURE FROM EXPECTED ICC						ITEM FIT STATISTICS					
SEQ NUM	ITEM NAME	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	1ST GROUP	2ND GROUP	3RD GROUP	4TH GROUP	5TH GROUP	6TH GROUP	LOGIT BIAS	BETWN TTEST	TOTAL TTEST	DEG FRDM	DISC INDX	POINT BISER
1	261	0.86	0.91	0.93	0.94	0.96	0.96	0.07	0.03	-0.00	-0.01	-0.02	-0.02	0.00	13.55	-1.96	1134	0.63	0.13
2	113	0.71	0.84	0.88	0.89	0.91	0.90	0.08	0.07	0.01	-0.02	-0.04	-0.06	0.00	22.43	0.25	1888	0.57	0.18
3	211	0.90	0.95	0.95	0.97	0.98	0.97	0.03	0.02	-0.00	-0.00	-0.00	-0.02	0.00	11.82	-3.06	771	0.69	0.11
4	347	0.19	0.28	0.47	0.62	0.73	0.83	-0.02	-0.05	0.02	0.03	0.02	0.01	0.00	5.15	-2.31	3441	1.10	0.46
5	265	0.11	0.18	0.36	0.55	0.77	0.88	-0.06	-0.11	-0.04	0.01	0.10	0.10	0.00	20.34	-7.76	3480	1.43	0.56
6	450	0.21	0.38	0.56	0.69	0.81	0.91	-0.05	-0.03	0.00	0.02	0.03	0.05	0.00	8.77	-3.50	1315	1.20	0.49
7	203	0.30	0.53	0.70	0.80	0.90	0.94	-0.08	-0.01	0.04	0.02	0.04	0.02	0.00	10.46	-3.86	2934	1.20	0.48
8	1961	0.19	0.25	0.43	0.64	0.80	0.94	-0.03	-0.11	-0.05	0.03	0.07	0.10	0.00	18.45	-6.23	3414	1.37	0.54
9	1654	0.17	0.35	0.57	0.80	0.89	0.96	-0.13	-0.10	-0.01	0.04	0.08	0.07	0.00	23.08	-7.92	3208	1.49	0.58
10	1655	0.27	0.36	0.50	0.61	0.71	0.88	0.03	-0.03	-0.01	-0.03	0.05	0.12	0.00	6.05	-1.39	3360	1.05	0.43
11	489	0.63	0.80	0.92	0.96	0.96	0.98	-0.06	-0.01	0.05	0.03	0.01	0.00	0.00	10.25	-4.18	1683	1.13	0.36
12	492	0.70	0.86	0.91	0.94	0.96	0.98	-0.01	0.03	0.02	0.01	-0.01	0.00	0.00	2.44	-3.05	1528	0.98	0.28
13	1664	0.66	0.82	0.88	0.93	0.96	0.98	-0.01	0.02	0.01	0.01	0.01	0.00	0.00	0.79	-2.98	1734	1.02	0.32
14	520	0.32	0.52	0.62	0.73	0.86	0.93	-0.02	0.02	-0.00	-0.01	0.02	0.03	0.00	3.68	-1.81	3086	1.08	0.44
15	1667	0.22	0.23	0.26	0.32	0.37	0.49	0.14	0.08	0.05	-0.02	-0.11	-0.14	0.01	24.07	3.74	3307	0.39	0.18
16	1656	0.60	0.80	0.88	0.93	0.97	0.96	-0.04	0.02	0.02	0.02	0.02	-0.01	0.00	6.91	-3.28	1865	1.06	0.35
17	559	0.23	0.34	0.44	0.54	0.69	0.77	0.04	0.03	0.01	-0.02	-0.00	-0.04	0.01	6.16	1.08	3467	0.84	0.37
18	566	0.26	0.38	0.51	0.73	0.84	0.89	-0.01	-0.04	-0.04	0.05	0.05	0.02	0.00	9.20	-2.91	3291	1.15	0.47
19	666	0.72	0.91	0.94	0.98	0.99	1.00	-0.07	0.03	0.01	0.02	0.02	0.01	0.00	11.50	-4.67	1171	1.22	0.33
20	684	0.22	0.34	0.46	0.61	0.76	0.87	-0.00	-0.01	-0.02	-0.00	0.02	0.04	0.00	3.47	-2.00	3414	1.10	0.45
21	1965	0.50	0.67	0.80	0.85	0.90	0.96	-0.00	0.01	0.03	0.00	-0.01	0.01	0.00	0.91	-1.62	2464	1.00	0.37
22	1628	0.42	0.51	0.60	0.66	0.76	0.87	0.11	0.05	0.01	-0.05	-0.05	-0.01	0.01	13.85	3.21	3185	0.72	0.31
23	775	0.52	0.70	0.77	0.87	0.88	0.92	0.02	0.04	0.01	0.02	-0.02	-0.02	0.00	6.72	0.02	2496	0.87	0.32
24	1634	0.37	0.64	0.70	0.79	0.82	0.84	-0.01	0.10	0.04	0.02	-0.04	-0.07	0.01	16.91	1.64	2947	0.76	0.32
25	1633	0.84	0.93	0.96	0.97	0.99	0.99	-0.01	0.02	0.01	0.00	0.01	0.00	0.00	1.22	-4.05	884	1.01	0.23
26	1631	0.21	0.39	0.52	0.69	0.78	0.93	-0.05	-0.02	-0.01	0.03	0.01	0.06	0.00	10.18	-3.53	3319	1.21	0.49
27	1632	0.22	0.28	0.38	0.42	0.58	0.70	0.08	0.04	0.04	-0.06	-0.03	-0.04	0.01	13.88	1.92	3479	0.73	0.32
28	1630	0.34	0.48	0.55	0.73	0.84	0.95	0.02	-0.00	-0.06	0.00	0.02	0.06	0.00	10.44	-1.89	3131	1.11	0.44
29	1658	0.22	0.34	0.48	0.67	0.84	0.96	-0.04	-0.06	-0.05	0.01	0.05	0.10	0.00	17.42	-5.52	3330	1.34	0.53
30	1665	0.07	0.12	0.12	0.17	0.24	0.40	0.03	0.04	0.01	-0.02	-0.05	-0.02	0.00	10.70	-5.97	2743	0.81	0.25

SCORE RANGE	9-14	15-17	18-20	21-23	24-25	26-27
MEAN ABILITY	-0.46	0.21	0.71	1.27	1.84	2.45
MEAN Z-TEST	0.1	0.3	0.4	0.5	0.5	0.3
SD(Z-TEST)	3.8	2.9	1.7	1.9	2.7	4.4
GROUP COUNT	598	605	698	757	595	684

PLUS=TOO MANY RIGHT
MINUS=TOO MANY WRONG

LOGIT BIAS = INCREMENT TO CAL. STD. ERROR
ASSOCIATED WITH ITEM MISFIT

30 ITEMS 3937 PERSONS WITH MEAN ABILITY = 1.34 AND STD. DEV. = 1.19

APPENDIX 4

ANALYSES OF VARIANCE RESULTS FOR BASIC SKILLS ASSESSMENT TESTS

SPRING - 1980

TABLE A4-1

ANALYSES OF VARIANCE FOR THE BASIC SKILLS ASSESSMENT TESTS, SPRING - 1980: READING, LANGUAGE ARTS AND MATHEMATICS.

A. READING

Source	DF	SS	F	P
Region	5	573394	41	.0001
Grade	4	31373374	2786	.0001
Sex	2	951222	169	.0001
Region X Grade	20	277911	5	.0001
Region X Sex	10	33162	1	.3000
Grade X Sex	8	382460	17	.0001
Region X Grade X Sex	40	195110	2	.0003

B. LANGUAGE ARTS

Source	DF	SS	F	P
Region	5	636010	39	.0001
Grade	4	70497990	5413	.0001
Sex	2	2702290	415	.0001
Region X Grade	20	51282	8	.0001
Region X Sex	10	67718	2	.0225
Grade X Sex	8	60685	2	.0169
Region X Grade X Sex	40	176338	1	.0669

C. MATHEMATICS

Source	DF	SS	F	P
Region	5	1310177	80	.0001
Grade	3	148086980	15187	.0001
Sex	2	192619	30	.0001
Region X Grade	15	547766	11	.0001
Region X Sex	10	46238	1	.1530
Grade X Sex	6	445460	23	.0001
Region X Grade X Sex	30	114587	1	.2336

TABLE A4-2

ANALYSES OF VARIANCE FOR BASIC SKILLS ASSESSMENT TESTS: GRADE BY SEX

Source	SS	DF	F	P	R^2
A. READING					
Sex	723873	1	257	.001	.20
Grade	314414314	4	2795	.001	
Grade X Sex	369178	4	33	.001	
B. LANGUAGE ARTS					
Sex	2415427	1	743	.001	.33
Grade	70257794	4	5402	.001	
Grade X Sex	41991	4	3	.010	
C. MATHEMATICS					
Sex	48669	1	15	.001	.55
Grade	147320298	4	44	.001	
Grade X Sex	432491	4	15026	.001	

TABLE A4-3

ANALYSES OF VARIANCE FOR BASIC SKILLS ASSESSMENT TESTS, REGION BY SEX.

A. READING

Source	SS	DF	F	P	R^2
Region	5688846	5	33	.001	.018
Sex	737039	1	211	.001	
Region X Sex	24989	5	1	.210	

B. LANGUAGE ARTS

Source	SS	DF	F	P	R^2
Region	644076	5	27	.001	.01
Sex	2495731	1	524	.001	
Region X Sex	411202	5	2	.120	

C. MATHEMATICS

Source	SS	DF	F	P	R^2
Region	1322312	5	36	.001	.01
Sex	84983	1	12	.006	
Region X Sex	97068	5	3	.020	

TABLE A4-4

ANALYSES OF VARIANCE TABLE FOR BASIC SKILLS ASSESSMENT TESTS: GRADE BY REGION

A. READING					
Source	SS	DF	F	P	R^2
Grade	31643488	4	2780	.0001	.20
Region	303280	5	21	.0001	
Grade X Region	272681	20	5	.0001	
B. LANGUAGE ARTS					
Grade	70855856	4	5341	.0001	.31
Region	278144	5	17	.0001	
Grade X Region	504306	20	8	.0001	
C. MATHEMATICS					
Grade	143854247	3	15185	.0001	.56
Region	542910	5	33	.0001	
Grade X Region	545264	15	11	.0001	

TABLE A4-5

ANALYSES OF VARIANCE FOR BASIC SKILLS ACHIEVEMENT TESTS: YEARS IN DoDDS AND RANK OF SPONSOR.

Source	SS	DF	F	P	R^2
A. READING					
Years	2490484	3	260	.001	.08
Rank	10215269	8	400	.001	
Years X Rank	270166	24	4	.001	
B. LANGUAGE ARTS					
Years	4589665	3	352	.0001	.09
Rank	13349329	8	383	.0001	
Years X Rank	504765	24	6	.0001	
C. MATHEMATICS					
Years	7449468	3	382	.0001	.10
Rank	18100045	8	348	.0001	
Years X Rank	568385	24	4	.0001	

TABLE A4-6

Analyses of Variance Results for the Reading Test:
Rank of Sponsor by Years in DoDDS

Test Form	Source	SS	DF	F	P	R2
3	Years in DoDDS	208,175	3	20	.0001	.06
	Rank	2,048,005	8	75	.0001	
	Years by Rank	85,763	24	1	.391	
4	Years in DoDDS	92,942	3	12	.0001	.06
	Rank	1,526,622	8	71	.0001	
	Years by Rank	66,275	23	1	.362	
6	Years in DoDDS	225,202	3	28	.0001	.09
	Rank	1,896,676	8	90	.0001	
	Years by Rank	93,965	23	2	.05	
9	Years in DoDDS	123,048	3	24	.0001	.06
	Rank	918,829	8	68	.0001	
	Years by Rank	33,873	24	1	.207	
11	Years in DoDDS	41,543	8		.0001	
	Rank	489,941	33		.0001	
	Years by Rank	49,738	1		.207	

TABLE A4-7

Analyses of Variance Results for the Language Arts Test: Rank of Sponsor by Years in DoDDS

Test Form	Source	SS	DF	F	P	R2
3	Years in DoDDS	295,414	3	24	.0001	.05
	Rank	2,301,428	8	72	.0001	
	Years by Rank	124,413	24	1	.151	
4	Years in DoDDS	58,506	3	8	.0001	.06
	Rank	1,694,258	8	86	.0001	
	Years by Rank	45,899	23	1	.727	
6	Years in DoDDS	152,015	3	18	.0001	
	Rank	1,195,347	8	53	.0001	
	Years by Rank	129,516	23	2	.003	
9	Years in DoDDS	180,820	3	23	.0001	.07
	Rank	1,155,616	8	55	.0001	
	Years by Rank	68,590	24	1	.345	
11	Years in DoDDS	75,279	3	8	.0001	.06
	Rank	846,182	8	32	.0001	
	Years by Rank	141,006	23	2	.005	

TABLE A4-8

Analyses of Variance Results for the Mathematics Test:
Rank of Sponsor by Years in DoDDS

Test Form	Source	SS	DF	F	P	R2
	Years in DoDDS	172,311	3	20	.0001	.06
3	Rank	2,085,806	8	90	.0001	
	Years by Rank	83,343	24	1	.235	
	Years in DoDDS	363,237	3	49	.0001	.08
5	Rank	1,564,298	8	79	.0001	
	Years by Rank	37,390	24	1	.919	
	Years in DoDDS	447,198	3	48	.0001	.10
7	Rank	1,828,487	8	74	.0001	
	Years by Rank	149,770	24	2	.002	
	Years in DoDDS	114,432	3	9	.0001	.10
11	Rank	1,954,722	8	58	.0001	
	Years by Rank	98,603	22	1	.383	

APPENDIX 5

RAW SCORE IN MEASURE CONVERSION TABLES FOR BASIC SKILLS ASSESSMENT TEST

SPRING - 1980

TABLE A5-1

GRADE 3

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR READING.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	306	259	353
1	306	259	353
2	341	307	375
3	363	334	392
4	380	354	406
5	394	370	418
6	406	383	429
7	418	396	440
8	428	407	449
9	438	418	458
10	447	427	467
11	456	436	476
12	465	446	484
13	474	455	493
14	482	463	501
15	491	472	510
16	500	480	520
17	509	489	529
18	518	498	538
19	528	507	549
20	539	517	561
21	551	528	574
22	565	540	590
23	581	553	609
24	602	569	635
25	637	591	683
26	637	591	683

TABLE A5-2

GRADE 4

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR READING.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	299	252	346
1	299	252	346
2	335	301	369
3	357	328	386
4	374	348	400
5	388	364	412
6	401	379	423
7	412	391	433
8	422	401	443
9	431	411	451
10	441	421	461
11	449	430	468
12	458	439	477
13	467	448	486
14	475	456	494
15	484	465	503
16	493	473	513
17	502	482	522
18	511	491	531
19	521	500	542
20	531	509	553
21	543	520	566
22	556	532	580
23	571	545	597
24	589	559	619
25	612	577	647
26	650	602	698
27	650	602	698

TABLE A5-3

GRADE 6

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR READING.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	346	299	393
1	346	299	393
2	381	347	415
3	403	375	431
4	420	394	446
5	433	409	457
6	446	424	468
7	457	436	478
8	467	446	488
9	477	457	497
10	486	466	506
11	495	475	515
12	503	484	522
13	512	493	531
14	521	502	540
15	530	510	550
16	539	519	559
17	548	528	568
18	558	537	579
19	568	546	590
20	579	556	602
21	591	567	615
22	606	580	632
23	623	594	652
24	646	612	680
25	681	634	728
26	681	634	728

TABLE A5-4

GRADE 9

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR READING.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	402	355	449
1	402	355	449
2	437	404	470
3	459	431	487
4	476	451	501
5	489	466	512
6	501	479	523
7	512	491	533
8	522	502	542
9	531	512	550
10	539	520	558
11	547	528	566
12	555	537	573
13	563	545	581
14	570	552	588
15	578	560	596
16	585	567	603
17	593	575	611
18	600	582	618
19	608	589	627
20	617	598	636
21	626	606	646
22	635	614	656
23	645	623	667
24	657	634	680
25	670	645	695
26	687	659	715
27	708	675	741
28	743	696	790
29	743	696	790

TABLE A5-5

GRADE 11

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR READING.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	396	350	442
1	396	350	442
2	431	397	465
3	453	425	481
4	469	444	494
5	483	460	506
6	495	473	517
7	506	485	527
8	516	495	537
9	526	506	546
10	535	515	555
11	544	524	564
12	553	533	573
13	562	542	582
14	571	551	591
15	580	560	600
16	589	569	609
17	599	578	620
18	609	588	630
19	619	597	641
20	631	608	654
21	644	620	668
22	658	632	684
23	675	646	704
24	698	664	732
25	734	687	781
26	734	687	781

TABLE A5-6

GRADE 3

RAW SCORE TO MEASURE ON SCALE CONVERSTION TABLE FOR MATHEMATICS.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	222	175	269
1	222	175	269
2	257	223	291
3	279	251	307
4	296	271	321
5	310	287	333
6	321	299	343
7	332	311	353
8	341	321	361
9	350	331	369
10	359	340	378
11	367	349	385
12	374	356	392
13	382	364	400
14	389	371	407
15	396	378	414
16	403	385	421
17	411	393	429
18	418	400	436
19	426	408	444
20	433	414	452
21	442	423	461
22	450	430	470
23	460	439	481
24	470	448	492
25	481	458	504
26	495	470	520
27	511	483	539
28	533	500	566
29	568	521	615
30	568	521	615

TABLE A5-7

GRADE 5

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR MATHEMATICS.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	302	255	349
1	302	255	349
2	337	304	370
3	359	331	387
4	375	350	400
5	389	366	412
6	401	379	423
7	411	390	432
8	421	401	441
9	429	410	448
10	438	419	457
11	446	428	464
12	454	436	472
13	461	443	479
14	469	451	487
15	476	458	494
16	483	465	501
17	491	473	509
18	498	480	516
19	506	488	524
20	514	495	533
21	522	503	541
22	530	510	550
23	540	520	560
24	550	528	572
25	561	538	584
26	575	550	600
27	591	563	619
28	612	579	645
29	647	601	693
30	674	601	693

TABLE A5-8

GRADE 7

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR MATHEMATICS.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	353	306	400
1	353	306	400
2	389	355	423
3	412	383	441
4	429	403	455
5	443	419	467
6	455	433	477
7	466	445	487
8	476	456	496
9	485	465	505
10	493	474	512
11	501	482	520
12	509	491	527
13	517	499	535
14	525	507	543
15	532	514	550
16	539	521	557
17	547	529	565
18	554	536	572
19	562	544	580
20	570	551	589
21	578	559	597
22	587	567	607
23	596	575	617
24	607	585	629
25	618	595	641
26	631	606	656
27	647	619	675
28	669	635	703
29	703	657	749
30	703	657	749

TABLE A5-9

GRADE 11

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR MATHEMATICS.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	371	324	418
1	371	324	418
2	406	372	440
3	428	399	457
4	446	420	472
5	460	436	484
6	472	450	492
7	483	462	504
8	494	473	515
9	503	483	523
10	512	492	532
11	521	510	548
12	529	510	548
13	538	519	557
14	546	528	564
15	553	535	571
16	561	543	579
17	569	551	587
18	577	558	596
19	585	566	604
20	593	574	612
21	602	582	622
22	611	591	631
23	621	600	642
24	631	609	653
25	643	620	666
26	657	632	682
27	674	645	703
28	697	663	731
29	732	685	779
30	732	685	779

Grade 3

Raw Score to Measure on Scale Conversion Table for Mathematics

Raw Score	Measure on Scale	Lower Limit	Upper Limit
0	222	175	269
1	222	175	269
2	257	223	291
3	279	251	307
4	296	271	321
5	310	287	333
6	321	299	343
7	332	311	353
8	341	321	361
9	350	331	369
10	359	340	378
11	367	349	385
12	374	356	392
13	382	364	400
14	389	371	407
15	396	378	414
16	403	385	421
17	411	393	429
18	418	400	436
19	426	408	444
20	433	414	452
21	442	423	461
22	450	430	470
23	460	439	481
24	470	448	492
25	481	458	504
26	495	470	520
27	511	483	539
28	533	500	566
29	568	521	615
30	568	521	615

Grade 5

Raw Score to Measure on Scale Conversion Table for Mathematics

Raw Score	Measure on Scale	Lower Limit	Upper Limit
0	302	255	349
1	302	255	349
2	337	304	370
3	359	331	387
4	375	350	400
5	389	366	412
6	401	379	423
7	411	390	432
8	421	401	441
9	429	410	448
10	438	419	457
11	446	428	464
12	454	436	472
13	461	443	479
14	469	451	487
15	476	458	494
16	483	465	501
17	491	473	509
18	498	480	516
19	506	488	524
20	514	495	533
21	522	503	541
22	530	510	550
23	540	520	560
24	550	528	572
25	561	538	584
26	575	550	600
27	591	563	619
28	612	579	645
29	647	601	693
30	674	601	693

Grade 7

Raw Score to Measure on Scale Conversion Table for Mathematics

Raw Score	Measure on Scale	Lower Limit	Upper Limit
0	353	306	400
1	353	306	400
2	389	355	423
3	412	383	441
4	429	403	455
5	443	419	467
6	455	433	477
7	466	445	487
8	476	456	496
9	485	465	505
10	493	474	512
11	501	482	520
12	509	491	527
13	517	499	535
14	525	507	543
15	532	514	550
16	539	521	557
17	547	529	565
18	554	536	572
19	562	544	580
20	570	551	589
21	578	559	597
22	587	567	607
23	596	575	617
24	607	585	629
25	618	595	641
26	631	606	656
27	647	619	675
28	669	635	703
29	703	657	749
30	703	657	749

Grade 11

Raw Score to Measure on Scale Conversion Table for Mathematics

Raw Score	Measure on Scale	Lower Limit	Upper Limit
0	371	324	418
1	371	324	418
2	406	372	440
3	428	399	457
4	446	420	472
5	460	436	484
6	472	450	492
7	483	462	504
8	494	473	515
9	503	483	523
10	512	492	532
11	521	510	548
12	529	510	548
13	538	519	557
14	546	528	564
15	553	535	571
16	561	543	579
17	569	551	587
18	577	558	596
19	585	566	604
20	593	574	612
21	602	582	622
22	611	591	631
23	621	600	642
24	631	609	653
25	643	620	666
26	657	632	682
27	674	645	703
28	697	663	731
29	732	685	779
30	732	685	779

TABLE A5-10

GRADE 3

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR LANGUAGE ARTS

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	227	181	273
1	227	181	273
2	261	228	294
3	282	254	310
4	298	273	323
5	311	288	334
6	322	301	343
7	332	312	352
8	341	321	361
9	350	331	369
10	358	339	377
11	366	348	384
12	374	356	392
13	382	364	400
14	389	371	407
15	397	379	415
16	405	387	423
17	412	394	430
18	420	402	438
19	428	409	447
20	436	417	455
21	445	426	464
22	454	434	474
23	463	443	483
24	473	452	494
25	484	462	506
26	495	472	518
27	509	485	533
28	524	497	551
29	542	512	572
30	565	530	600
31	602	555	649
32	602	555	649

TABLE A5-11

GRADE 4

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR LANGUAGE ARTS

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	267	221	313
1	267	221	313
2	301	267	335
3	323	295	351
4	339	314	364
5	353	330	376
6	364	342	386
7	375	354	396
8	385	365	405
9	394	374	414
10	403	384	422
11	412	393	431
12	420	401	439
13	428	409	447
14	436	41[illegible]	455
15	445	426	464
16	453	434	472
17	461	442	480
18	470	451	489
19	479	459	499
20	488	468	508
21	497	477	517
22	507	486	528
23	517	496	538
24	528	506	550
25	539	516	562
26	552	528	576
27	566	541	591
28	581	554	608
29	600	570	630
30	624	589	659
31	660	613	707
32	660	613	707

TABLE A5-12

GRADE 6

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR LANGUAGE ARTS.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	313	266	360
1	313	266	360
2	349	315	383
3	372	343	401
4	389	363	415
5	403	379	427
6	415	393	437
7	426	405	447
8	436	416	456
9	445	425	465
10	454	435	473
11	462	443	481
12	470	451	489
13	478	460	496
14	486	468	504
15	494	476	512
16	501	483	519
17	509	490	528
18	517	498	536
19	526	507	545
20	534	514	554
21	543	523	563
22	553	532	574
23	564	542	586
24	576	553	599
25	589	564	614
26	606	578	634
27	628	594	662
28	662	615	709
29	662	615	709

500

TABLE A5-13

GRADE 9

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR LANGUAGE ARTS.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	322	275	369
1	322	275	369
2	358	323	393
3	381	352	410
4	399	373	425
5	414	390	438
6	426	404	448
7	437	416	458
8	448	427	469
9	457	437	477
10	466	447	485
11	475	456	494
12	483	464	502
13	491	472	510
14	499	481	517
15	507	489	525
16	514	496	532
17	522	504	540
18	530	512	548
19	537	519	555
20	545	527	563
21	553	534	572
22	561	542	580
23	570	551	589
24	579	559	599
25	588	567	609
26	598	577	619
27	610	588	632
28	622	598	646
29	637	611	663
30	655	625	685
31	678	643	713
32	716	668	764
33	716	668	764

TABLE A5-14

GRADE 11

RAW SCORE TO MEASURE ON SCALE CONVERSION TABLE FOR LANGUAGE ARTS.

RAW SCORE	MEASURE ON SCALE	LOWER LIMIT	UPPER LIMIT
0	342	295	389
1	342	295	389
2	377	343	411
3	400	371	429
4	417	391	443
5	431	407	455
6	443	421	465
7	455	434	476
8	465	444	486
9	474	454	494
10	483	464	502
11	492	473	511
12	500	481	519
13	508	489	527
14	516	498	534
15	524	506	542
16	532	514	550
17	539	521	557
18	547	529	565
19	555	537	573
20	563	544	582
21	571	552	590
22	579	560	598
23	588	568	608
24	597	577	617
25	607	586	628
26	618	596	640
27	629	606	652
28	643	617	669
29	660	631	689
30	682	648	716
31	717	671	763
32	717	671	763

502

APPENDIX 6

SUGGESTED PROCEDURES FOR INDIVIDUAL SCORE INTERPRETATION

Suggested Procedures for Individual Score Interpretation

Place an individual student's Measure on Scale on the calibrated Rasch continuum included for each subject area (Figures 63, 69, and 75).

Compare the score to the grade level mean. This may be especially useful in reporting individual performance to parents. For example, a fourth grader who has a Measure on Scale significantly beyond his/her grade level mean may actually be performing at the level of the average sixth grader.

Consider the following to interpret an individual student's performance with the continuum: Measure on Scale, Probable Range, Mastery Level, and Measurement Quality.

1. Measure on Scale - Use the continuum provided (Figures 63, 69, and 75). Draw a vertical line to represent the Measure on Scale for an individual student.

   The Rasch model positions a student's score at that point on the scale where the student has a 50-50 chance of answering items correctly at that difficulty level.

   For example, if the Measure on Scale is 550, the vertical line will go from top to bottom and intersect with the range of each skill at the calibrated point of 550.

2. Probable Range - Use the Probable Range reported for the student to determine the appropriate range of instruction. For example, with a Measure on Scale of 550, a Probable Range from 531 to 569 may be shown. This is interpreted as an appropriate range for instruction.

3. Mastery Level - Mastery Level bands run from 99% chance of answering items correctly down to a 1% chance of doing so. The Mastery Level is reported for each student's performance on each item on the individual student report.

   For example, if the Measure on Scale is 550, items which are calibrated lower than 550 are more likely to be answered correctly. A student with a score of 550 has a 75% chance of answering an item calibrated at 500. On the other hand, the student has only a 25% chance of answering an item calibrated at 605.

   If a skill has a range from 535 to 610, the Measure on Scale of 550 indicates an entry level of achievement. The implications are that the student is able

Suggested Procedures for Individual Score Interpretation (continued)

to handle the easier applications of the skill and is ready for further instruction.

If a skill ranges from 350 to 410, the Measure on Scale of 550 represents achievement beyond the most difficult example of that skill. The implications are that the student has a 99% chance of answering the hardest item measuring that skill. Mastery can be assumed.

4. Measurement Quality - The Measurement Quality for each student is reported on the individual student report. A Measurement Quality of 100 indicates a highly reliable prediction for all skills on the continuum, even those not measured on the test. A lower Measurement Quality must be considered individually by noting the variations from expected performance which are indicated on the individual student report.

5. Suggested Procedure for Grade Level Mean Interpretation - Use the grade level means given for each subject area tested. Place the grade level mean on the calibrated Rasch continuum included for each subject area (Figures 63, 69 , and 75).

   Consider the following tools for analysis:

   a. Curriculum/Performance Match
   b. Administrative Summary
   c. DoDDS Scope and Sequence
   d. Individual Student Reports
   e. Administrators Pamphlet

595

APPENDIX 7

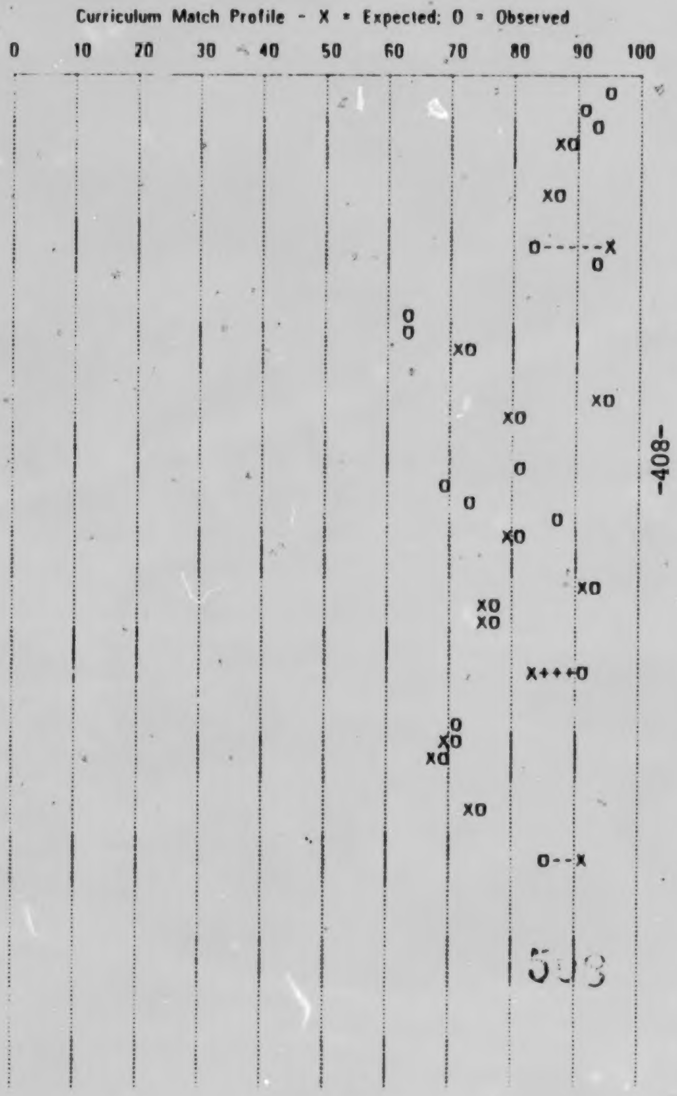
PERFORMANCE CURRICULUM MATCH REPORTS AND ADMINISTRATIVE SUMMARIES FOR BASIC SKILLS ASSESSMENT

DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

READING 303 13,248 MAY-80 1 004-1196

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
01	SINGLE INITIAL CONSONANTS	403	95	95	+ 0
02	SINGLE INITIAL CONSONANTS	429	92	92	+ 0
03	SINGLE INITIAL CONSONANTS	418	93	94	+ 1
04	VARIANT CONSONANTAL SOUNDS	449	88	90	+ 2
	EVALUATIVE COMPREHENSION				
05	EVAL COMP - DISTINGUISH FANTASY AND REALISM	459	86	88	+ 2
	WORD RECOGNITION				
15	WORD RECOGNITION-BASIC SIGHT WORDS	388	96	83	- 13
06	WORD RECOGNITION-BASIC SIGHT WORDS	415	93	94	+ 1
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
12	ROOT WORDS	539	63	63	+ 0
07	PLURAL NOUNS-INFLECTIONAL ENDINGS	538	63	64	+ 1
13	SUFFIXES	516	71	73	+ 2
	WORD MEANING				
08	WORD MEANING-CONTEXTUAL MEANING	406	94	95	+ 1
22	WORD MEANING-CONTEXTUAL MEANING	487	80	82	+ 2
	LITERAL COMPREHENSION				
09	LITERAL COMPREHENSION-SEQUENCE	479	82	82	+ 0
26	LITERAL COMPREHENSION-DETAILS	518	70	70	+ 0
25	LITERAL COMPREHENSION-DETAILS	509	73	74	+ 1
14	LITERAL COMPREHENSION-MAIN IDEA	455	87	88	+ 1
20	LITERAL COMPREHENSION-DETAILS	488	79	81	+ 2
	INTERPRETIVE COMPREHENSION				
10	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	423	92	93	+ 1
21	INTER COMP - CAUSE AND EFFECT	501	76	78	+ 2
19	INTERPRETIVE COMPREHENSION-MAIN IDEA	500	76	78	+ 2
	MULTIPLE WORD FORMS				
11	COMPOUND WORDS	470	84	91	+ 7
	PHONETIC ANALYSIS-VOWELS				
18	SHORT VOWEL SOUNDS	511	72	72	+ 0
16	SHORT VOWEL SOUNDS	520	70	72	+ 2
17	LONG VOWEL SOUNDS	527	67	70	+ 3
	DICTIONARY				
23	ALPHABETIZING	509	73	75	+ 2
24	TABLE OF CONTENTS USE	434	91	86	- 5


Curriculum Match Profile - X = Expected; 0 = Observed

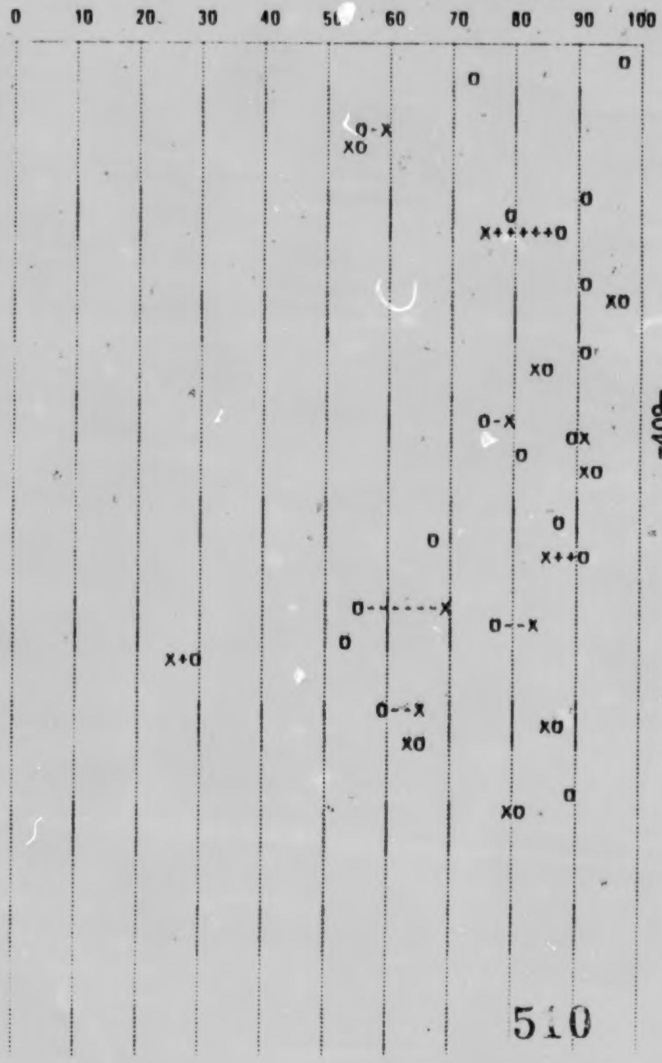
DEPARTMENT OF DEFENSE
DEPENDENTS SCHOOLS

READING 304 11,902 MAY-80 1 004-1235

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
01	INITIAL CONSONANTAL DIGRAPHS	360	97	98	+ 1
02	INITIAL DOUBLE CONSONANTAL BLENDS	496	73	74	+ 1
	PHONETIC ANALYSIS-VOWELS				
04	VOWEL DIGRAPHS	531	59	56	- 3
03	VOWEL DIGRAPHS	544	53	55	+ 2
	MULTIPLE WORD FORMS				
05	COMPOUND WORDS	426	91	92	+ 1
07	CONTRACTIONS	478	79	80	+ 1
08	CONTRACTIONS	489	75	88	+ 13
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
06	ROOT WORDS	422	92	92	+ 0
09	PREFIXES	393	95	98	+ 3
	WORD MEANING				
13	WORD MEANING-CONTEXTUAL MEANING	427	91	92	+ 1
10	WORD MEANING-CONTEXTUAL MEANING	462	83	85	+ 2
	INTERPRETIVE COMPREHENSION				
11	INTERPRETIVE COMPREHENSION-MAIN IDEA	478	79	76	- 3
18	INTER COMP - CAUSE AND EFFECT	419	92	90	- 2
17	INTERPRETIVE COMPREHENSION-MAIN IDEA	469	82	82	+ 0
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	415	92	93	+ 1
	LITERAL COMPREHENSION				
15	LITERAL COMPREHENSION-SEQUENCE	447	87	88	+ 1
16	LITERAL COMPREHENSION-DETAILS	511	67	68	+ 1
12	LITERAL COMPREHENSION-DETAILS	449	86	91	+ 5
	EVALUATIVE COMPREHENSION				
19	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	508	69	56	- 13
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	462	83	77	- 6
24	EVAL COMP - IDENT PROB NEW USES RESEARCH	545	53	53	+ 0
20	EVAL COMP - PREDICTIVE OUTCOMES	611	26	29	+ 3
	DICTIONARY				
25	GUIDE WORDS	515	66	59	- 7
22	ALPHABETIZING	454	86	87.	+ 1
23	ALPHABETIZING	520	64	65	+ 1
26	TABLE OF CONTENTS USE	434	89	90	+ 1
27	GLOSSARY USE	477	79	81	+ 2

Curriculum Match Profile - X = Expected; 0 = Observed



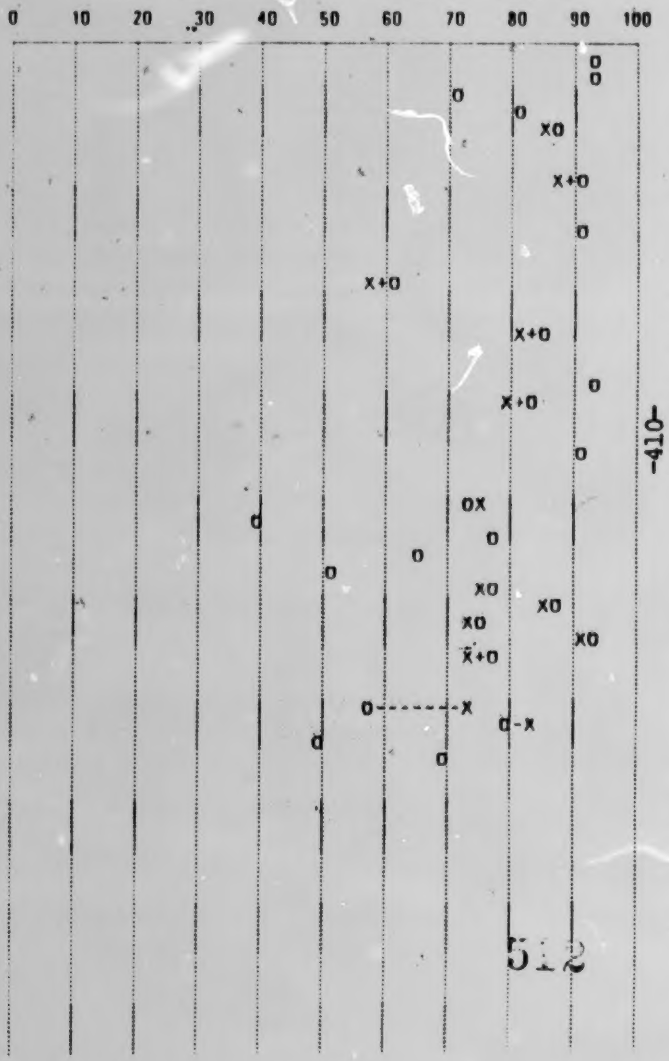
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

READING 306 9,293 MAY-80 1 004-1285

BASIC SKILLS ASSESSMENT
Curriculum Match Report · Grade 6

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	437	94	94	+ 0
02	PLURAL NOUNS-INFLECTIONAL ENDINGS	438	94	94	+ 0
05	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	539	71	71	+ 0
09	SUFFIXES	505	82	82	+ 0
03	PREFIXES	487	86	87	+ 1
	MULTIPLE WORD FORMS				
04	CONTRACTIONS	476	88	92	+ 4
	WORD RECOGNITION				
06	WORD RECOGNITION-IRREGULAR VERBS	456	92	92	+ 0
	DICTIONARY				
07	GUIDE WORDS	572	58	62	+ 4
08	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	81	86	+ 5
	WORD MEANING				
10	WORD MEANING-CONTEXTUAL MEANING	441	94	94	+ 0
17	WORD MEANING-CONTEXTUAL MEANING	510	80	83	+ 3
	LITERAL COMPREHENSION				
11	LITERAL COMPREHENSION-DETAILS	459	91	92	+ 1
	INTERPRETIVE COMPREHENSION				
13	INTERPRETIVE COMPREHENSION-MAIN IDEA	523	76	74	- 2
22	INTER COMP - CAUSE AND EFFECT	615	40	39	- 1
15	INTERPRETIVE COMPREHENSION-MAIN IDEA	518	78	78	+ 0
23	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	554	65	65	+ 0
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	52	52	+ 0
12	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	524	76	77	+ 1
18	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	490	85	87	+ 2
24	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	73	76	+ 3
19	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	459	91	94	+ 3
14	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	534	73	77	+ 4
	EVALUATIVE COMPREHENSION				
20	EVAL COMP - PREDICTIVE OUTCOMES	533	73	57	- 16
25	EVAL COMP - IDENTIFY AUTHORS PURPOSE	496	84	80	- 4
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	50	49	- 1
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	544	69	70	+ 1

Curriculum Match Profile - X = Expected; O = Observed

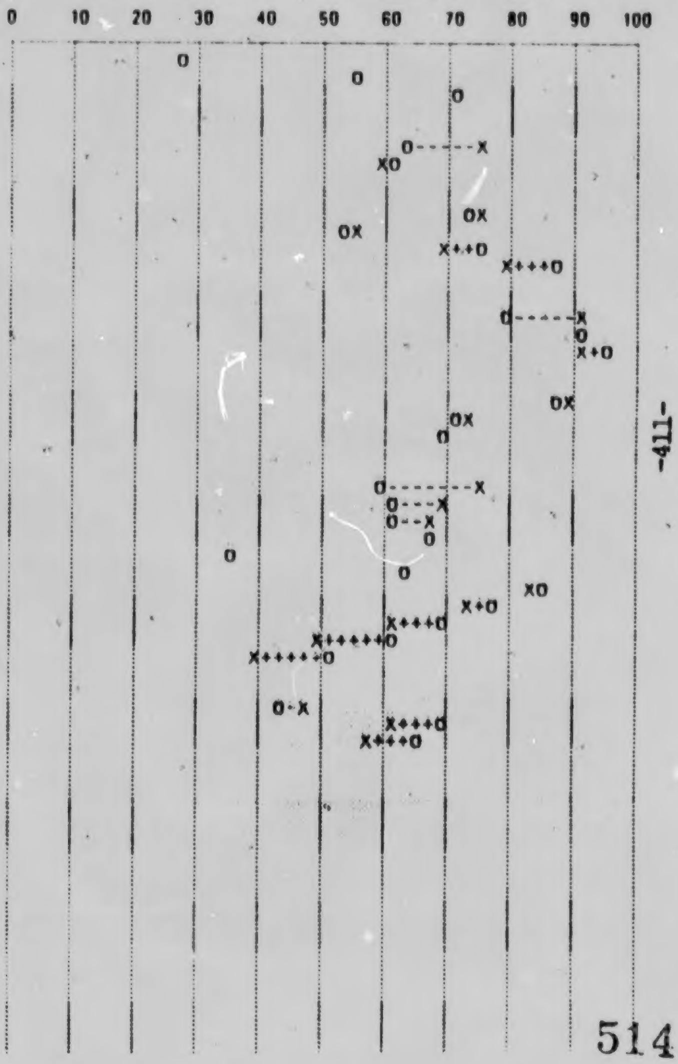


READING 309 6,960 MAY-80 1 005-2096

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	665	28	27	- 1
02	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	603	56	55	- 1
03	SUFFIXES	565	72	72	+ 0
	WORD MEANING				
04	WORD MEANING-ANTONYMS	557	75	64	- 11
05	WORD MEANING-CONTEXTUAL MEANING	596	59	62	+ 3
	DICTIONARY				
07	STUDY SKILLS-MEANING APPROPRIATE TO CONTENT	554	76	73	- 3
08	PRONUNCIATION KEY	605	55	54	- 1
09	GUIDE WORDS	572	69	75	+ 6
06	PRONUNCIATION KEY	542	80	88	+ 8
11	STUDY SKILLS - USE OF REFERENCE MATERIALS	491	92	80	- 12
10	STUDY SKILLS - INDEX USE	489	92	91	- 1
12	STUDY SKILLS - USE OF REFERENCE MATERIALS	488	92	96	+ 4
13	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	89	87	- 2
16	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	564	73	71	- 2
15	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	570	70	70	+ 0
	INTERPRETIVE COMPREHENSION				
23	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	76	59	- 17
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	571	70	61	- 9
25	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	67	62	- 5
22	INTERPRETIVE COMP.-IDENTIFY MOOD/TONE	574	68	67	- 1
27	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	647	36	35	- 1
29	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	64	64	+ 0
20	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	83	86	+ 3
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	562	73	77	+ 4
28	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	592	61	69	+ 8
18	INTER COMP - CAUSE AND EFFECT	615	50	61	+ 11
17	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	640	39	52	+ 13
	EVALUATIVE COMPREHENSION				
24	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	621	48	44	- 4
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	62	69	+ 7
19	EVAL COMP - STYLES TECHNIQUES AND FORMS	599	58	66	+ 8

Curriculum Match Profile - X = Expected; O = Observed



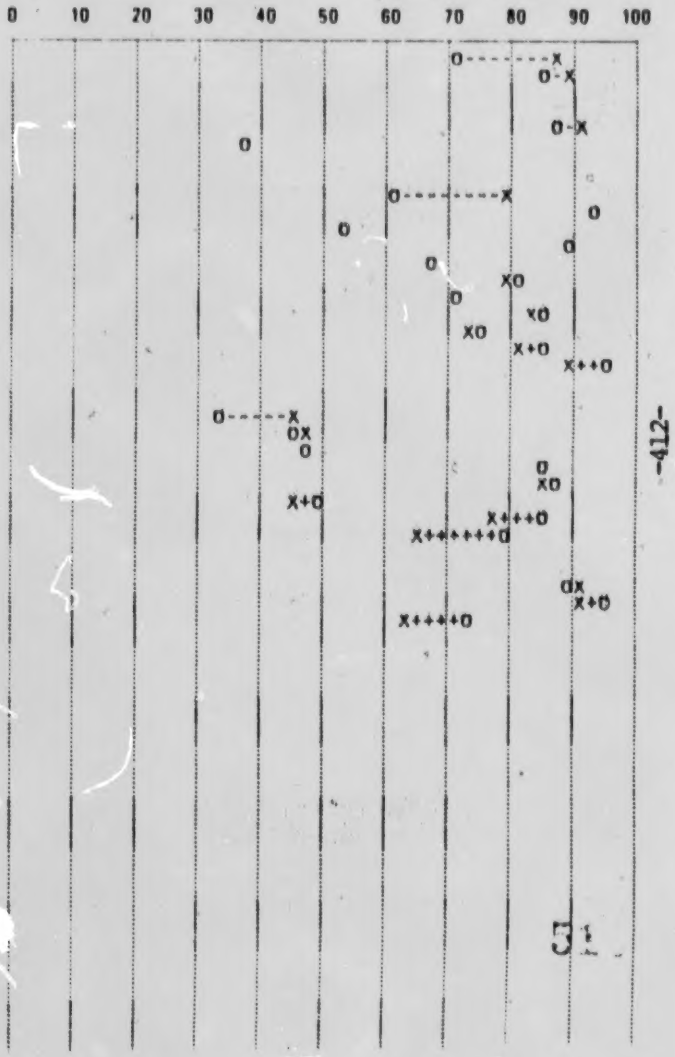
DEPARTMENT OF DEFENSE

READING 311 4,945 MAY-80 1 002-3648

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
02	STUDY SKILLS - INDEX USE	523	88	72	- 16
01	REFERENCING AUTHORS	514	90	85	- 5
03	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	91	88	- 3
04	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	654	37	37	+ 0
	INTERPRETIVE COMPREHENSION				
15	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	80	61	- 19
07	INTERPRETIVE COMPREHENSION-SUBORD. DETAIL	488	94	94	+ 0
21	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	621	53	53	+ 0
23	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	516	89	89	+ 0
08	INTER COMP - CAUSE AND EFFECT	590	67	68	+ 1
11	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	553	80	81	+ 1
22	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	71	72	+ 1
12	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	540	84	85	+ 1
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	572	74	75	+ 1
05	INTERPRETIVE COMPREHENSION-MAIN IDEA	550	81	86	+ 5
09	INTERPRETIVE COMP.-COMPARE AND CONTRAST	512	90	96	+ 6
	EVALUATIVE COMPREHENSION				
17	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	637	45	34	- 11
06	EVAL COMP - IDENT PROB NEW USES RESEARCH	633	47	46	- 1
24	EVAL COMP - STYLES TECHNIQUES AND FORMS	631	48	48	+ 0
25	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	538	85	86	+ 1
10	EVAL COMP - PREDICTIVE OUTCOMES	533	86	87	+ 1
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	637	45	49	+ 4
13	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	563	77	85	+ 8
14	EVAL COMP - JUDGE VALIDITY OF CONCLUSION	593	65	79	+ 14
	WORD MEANING				
19	WORD MEANING-CONTEXTUAL MEANING	506	91	90	- 1
20	WORD MEANING-LITERAL MEANING	502	92	95	+ 3
18	WORD MEANING-CONTEXTUAL MEANING	596	64	74	+ 10

Curriculum Match Profile - X = Expected; O = Observed



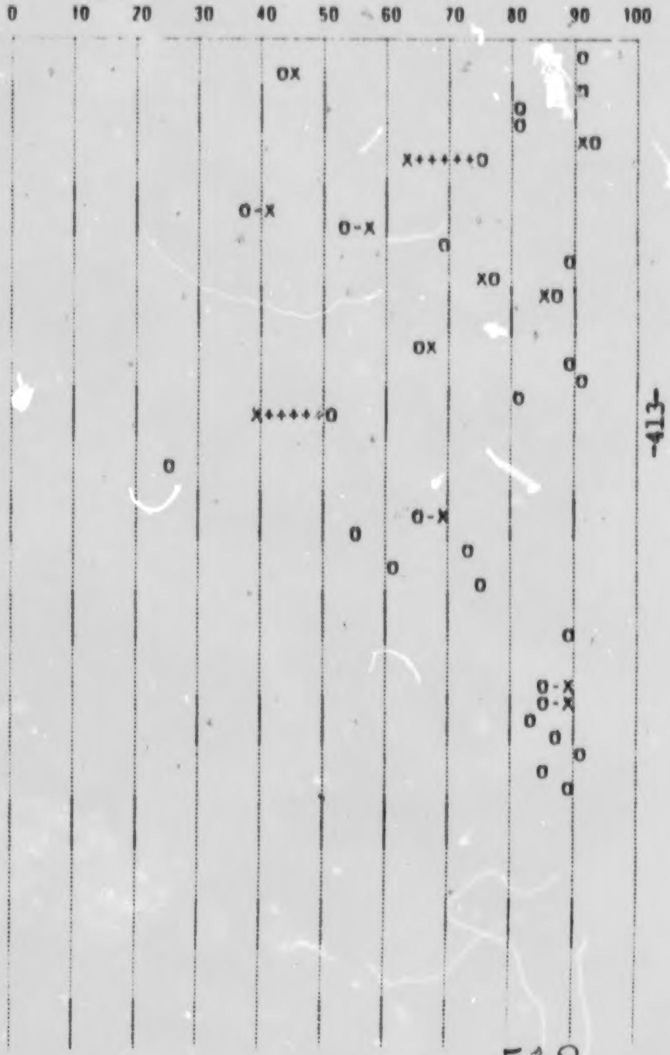
DEPARTMENT OF DEFENSE
DEPENDENTS SCHOOLS

LANGUAGE ARTS 303 13,190 MAY-80 1 ... 004-1210

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
03	CAPITALIZATION-PRONOUN "I"	343	92	91	- 1
04	CAPITALIZATION-PROPER NOUNS	500	45	44	- 1
01	CAPITALIZATION-SENTENCE BEGINNING	342	92	92	+ 0
06	CAPITALIZATION-PROPER NOUNS	396	82	82	+ 0
13	CAPITALIZATION-ABBREVIATIONS	399	81	81	+ 0
02	CAPITALIZATION-PROPER NOUNS	338	92	93	+ 1
05	CAPITALIZATION-INITIALS	452	64	76	+ 12
	PUNCTUATION				
12	PUNCTUATION-USE OF COMMAS	507	42	38	- 4
11	PUNCTUATION-USE OF COMMAS	471	57	54	- 3
10	PUNCTUATION-USE OF THE EXCLAMATION MARK	436	70	70	+ 0
07	PUNCTUATION-USE OF THE PERIOD	361	89	89	+ 0
08	PUNCTUATION-USE OF THE QUESTION MARK	416	76	77	+ 1
09	PUNCTUATION-USE OF THE QUESTION MARK	378	8[illegible]	87	+ 1
	USAGE				
16	USAGE - SUBJECT VERB AGREEMENT	445	67	65	- 2
14	USAGE - VERB TENSE	361	89	89	+ 0
17	USAGE-PRONOUN CASE	341	92	92	+ 0
18	USAGE-PRONOUN AGREEMENT	400	81	81	+ 0
15	USAGE - SUBJECT VERB AGREEMENT	515	39	51	+ 12
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	26	26	+ 0
	SENTENCE STRUCTURE				
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	69	66	- 3
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	474	56	56	+ 0
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	422	74	74	+ 0
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	61	62	+ 1
24	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	420	75	76	+ 1
	WORD FORMS				
25	FORM CLASS WORDS (N.V.ADV.ADJ.ARTICLES)	355	90	90	+ 0
	SPELLING				
31	SPELLING-UNCOMMON VOWEL UNIT	354	90	86	- 4
32	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	357	90	86	- 4
29	SPELLING-AGENT NOUN SUFFIX	387	84	84	+ 0
30	SPELL-WORD W/ SHORT VOWEL DIGRAPH	366	88	88	+ 0
26	SPELLING-SCHWA SOUND	343	92	92	+ 0
27	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	379	86	86	+ 0
28	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	359	89	90	+ 1

Curriculum Match Profile - X = Expected; O = Observed

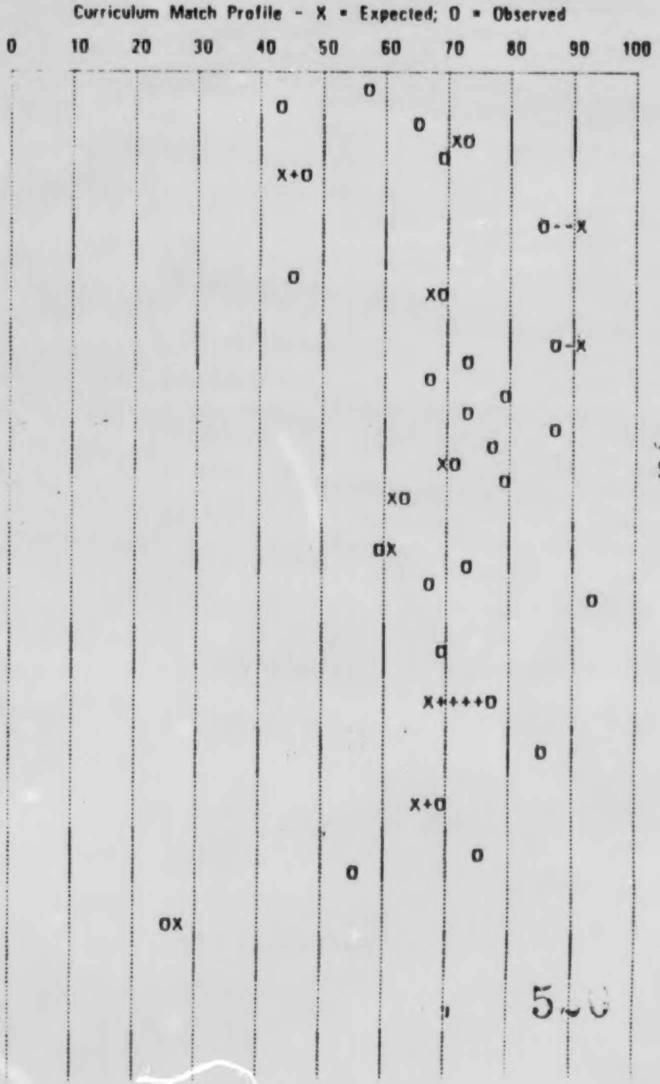


DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	COMPREHENSION-ARITHMETIC PROPERTIES				
06	COMPREHENSION-ORDER	430	57	57	+ 0
08	COMPREHENSION-ROUNDING	460	44	44	+ 0
11	COMPRE PROP OF DISTRIB COMMUT ASSOC CLOSURE	408	66	66	+ 0
05	COMPREHENSION-ORDER	391	72	73	+ 1
01	COMPREHENSION-PLACE VALUE	400	69	70	+ 1
07	COMPREHENSION-ROUNDING	460	44	48	+ 4
	COMPREHENSION-READ & WRITE NUMERALS				
02	COMPR READ,WRITE NUMERALS-ARABIC	308	92	86	- 6
	COMPREHEND PICTORIAL REPRESENTATION				
03	COMPRE PIC REPRESENTATION OF FRACTIONS	456	46	46	+ 0
04	COMPRE PIC REPRESENTATION OF FRACTIONS	404	68	69	+ 1
	ARITHMETIC COMPUTATION				
18	SUBTRACT TRIPLE DIGIT INTEGERS WO REGROUP	314	92	88	- 4
15	SUBTRACT 2-DIGIT INTEGERS WITH REGROUPING	389	73	73	+ 0
17	SUBTRACT 2-DIGIT FROM 3-DIGIT W/REGROUPING	404	68	68	+ 0
14	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	368	80	80	+ 0
28	DIVIDE 2 DIGIT INTEGER WITHOUT REMAINDER	389	73	73	+ 0
29	MULTIPLY SINGLE DIGIT INTEGERS WO REGROUP	340	87	87	+ 0
13	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	376	77	78	+ 1
09	ADD MULTIDIGIT INTGRS WITH REGROUP	397	70	71	+ 1
12	ADD DOUBLE DIGIT INTEGERS WITH REGROUPING	370	79	80	+ 1
16	SUBTRACT TRIPLE DIGIT INTEGERS W REGROUP	417	62	63	+ 1
	MEASUREMENT APPLICATIONS				
23	APPLY TELLING TIME	422	61	60	- 1
10	APPLY-MONEY-MIXED OPERATIONS	387	74	74	+ 0
19	APPLY-MONEY-SUBTRACTING	404	67	67	+ 0
22	APPLY TELLING TIME	296	94	94	+ 0
	ARITHMETIC APPLICATIONS				
20	APPLY ADDITION-INTEGERS	401	69	69	+ 0
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
21	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	402	68	78	+ 10
	MEASUREMENT COMPUTATION				
24	COMPUTE MEASURE OF UNDEFINED SQUARE UNITS	350	85	85	+ 0
	APPLY-ARITHMETIC PROPERTIES				
25	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	408	66	69	+ 3
	COMPREHEND GEOMETRY				
26	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	384	75	75	+ 0
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	434	55	55	+ 0
	COMPUTER KNOWLEDGE				
30	COMPUTER KNOWLEDGE	502	28	26	- 2



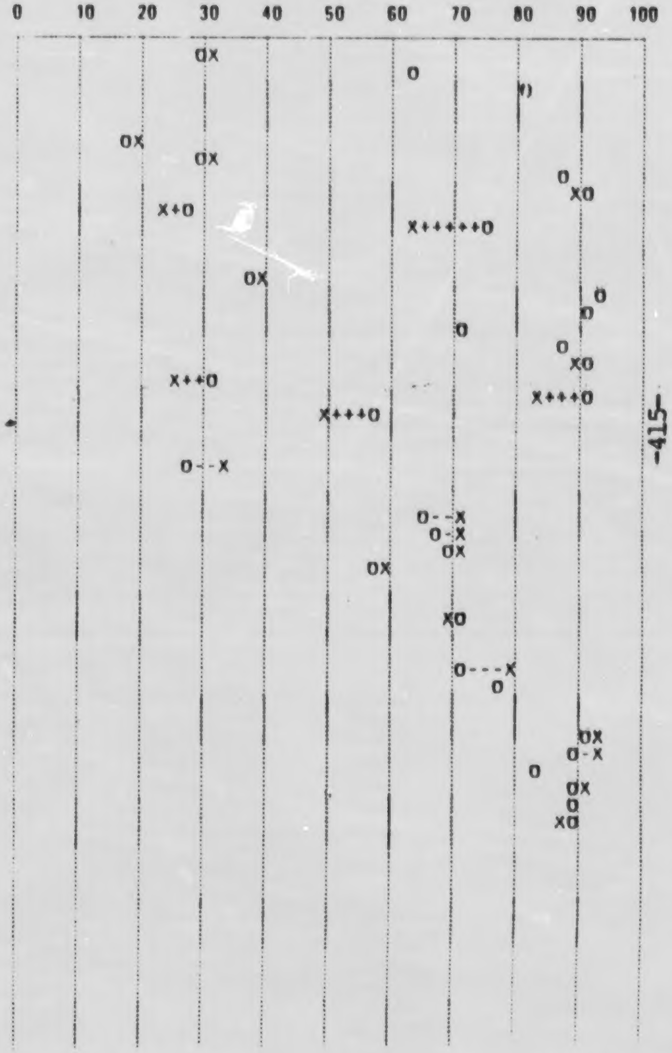
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
02	CAPITALIZATION-PROPER NOUNS	556	31	30	- 1
01	CAPITALIZATION	483	63	63	+ 0
03	CAPITALIZATION-PRONOUN "I"	429	82	82	+ 0
	PUNCTUATION				
09	PUNCTUATION-USE OF APOSTROPHES	592	19	17	- 2
05	PUNCTUATION-USE OF COMMAS	556	31	30	- 1
06	PUNCTUATION-USE OF APOSTROPHES	409	87	87	+ 0
07	PUNCTUATION-USE OF APOSTROPHES	390	90	91	+ 1
04	PUNCTUATION-USE OF COMMAS	577	23	28	+ 5
08	PUNCTUATION-USE OF APOSTROPHES	483	63	75	+ 12
	USAGE				
18	USAGE-COMPARATIVES AND SUPERLATIVES	536	39	38	- 1
12	USAGE - VERB TENSE	368	94	94	+ 0
10	USAGE - VERB TENSE	387	91	91	+ 0
13	USAGE - SUBJECT VERB AGREEMENT	461	71	72	+ 1
17	USAGE-PRONOUN CASE	406	87	88	+ 1
11	USAGE - VERB TENSE	389	90	91	+ 1
15	USAGE - SUBJECT VERB AGREEMENT	571	25	32	+ 7
16	USAGE - DOUBLE NEGATIVES	420	84	92	+ 8
14	USAGE - SUBJECT VERB AGREEMENT	514	49	58	+ 9
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	33	27	- 6
	SENTENCE STRUCTURE				
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	459	72	65	- 7
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	72	68	- 4
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	462	71	69	- 2
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	493	59	58	- 1
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
24	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	70	71	+ 1
	BUILDING AND CHANGING SENTENCES				
25	BUILD AND CHANGE SENTENCES-COMPOUNDING	438	79	71	- 8
26	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	77	77	+ 0
	SPELLING				
28	SPELL-WORD W/ SHORT VOWEL DIGRAPH	360	94	91	- 3
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	371	93	90	- 3
29	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	422	84	83	- 1
27	SPELL-WORD W/ SHORT VOWEL DIGRAPH	385	91	90	- 1
30	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	390	90	90	+ 0
32	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	403	88	90	+ 2

Curriculum Match Profile - X = Expected; O = Observed



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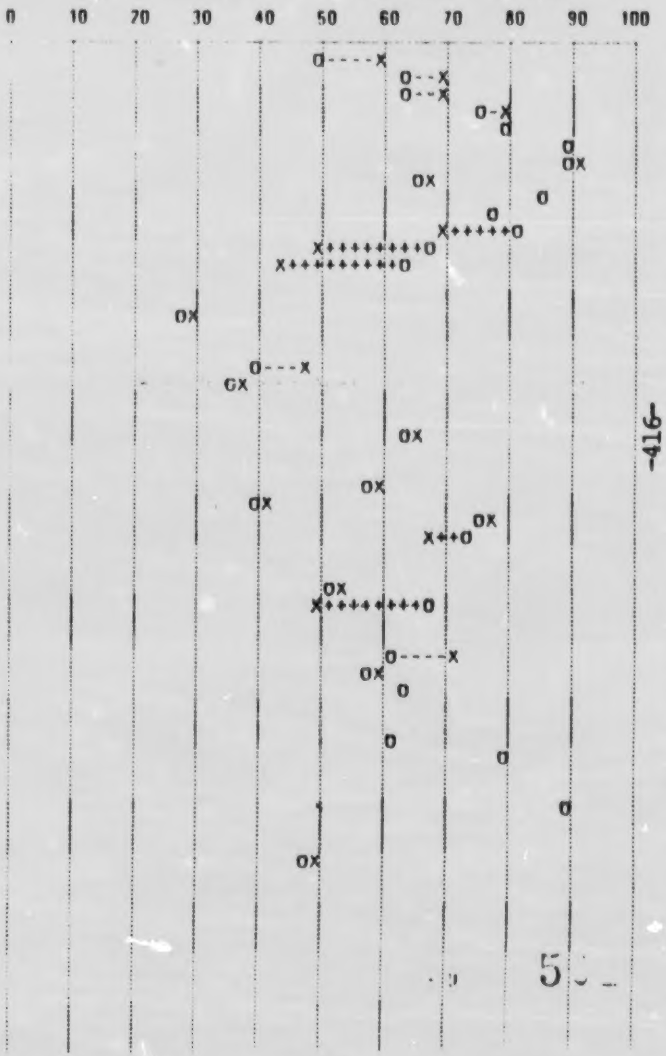
MATHEMATICS 305 10.723 MAY-80 1 004-1267

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 5

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
23	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	492	59	50	- 9
22	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	469	69	63	- 6
12	DIVIDE DECIMAL BY WHOLE NUMBER	467	69	63	- 6
07	MULT 2-3 DGTS BY 2 DGTS WITHOUT REGROUP	439	79	76	- 3
20	SUBTRACT DECIMALS-PTS ALIGNED-SAME DENOM	436	80	79	- 1
21	MULT WHOLE NUMBER BY 1-PLACE DECIMAL	394	90	89	- 1
10	ADD MULTIDIGIT INTGRS WITH REGROUP	391	91	90	- 1
06	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	472	67	66	- 1
24	SUCCESSIVE OPERATIONS-MULTIPLY-INTEGERS	413	86	85	- 1
11	DIVIDE DECIMAL BY WHOLE NUMBER	441	78	78	+ 0
08	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	469	69	81	+ 12
02	COMPUTE GREATEST COMMON FACTOR	514	50	67	+ 17
01	COMPUTE FACTORS OF A NUMBER	526	44	63	+ 19
	APPLY-ARITHMETIC PROPERTIES				
03	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	29	27	- 2
	COMPREHENSION-ARITHMETIC PROPERTIES				
04	COMPR-SIZE/MAGNITUDE OF NUMBERS	520	47	39	- 8
05	COMPR-SIZE/MAGNITUDE OF NUMBERS	543	37	35	- 2
	COMPR-PROBABILITY & STATISTICS				
09	COMPR-PROBABILITY & STATISTICS-AVERAGES	479	65	63	- 2
	ARITHMETIC APPLICATIONS				
14	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	494	59	57	- 2
13	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	535	41	39	- 2
28	APPLY ADDITION-INTEGERS	447	77	76	- 1
15	APPLY DIVISION-INTEGERS	470	68	73	+ 5
	MEASUREMENT APPLICATIONS				
16	APPLY-MONEY-SUBTRACTING	506	53	51	- 2
29	APPLY ENGLISH MEASURE-PLANE-SQUARE	515	49	68	+ 19
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
17	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	460	72	61	- 11
19	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	493	59	57	- 2
18	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	480	64	63	- 1
	COMPREHEND GEOMETRY				
25	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	484	62	61	- 1
27	COMPREHEND RELATIONS BETWEEN GEO FIGURES	436	80	79	- 1
	MEASUREMENT COMPUTATION				
26	PLANE METRIC SQUARE MEASUREMENT	396	90	89	- 1
	COMPUTER KNOWLEDGE				
30	COMPUTER KNOWLEDGE	515	49	47	- 2

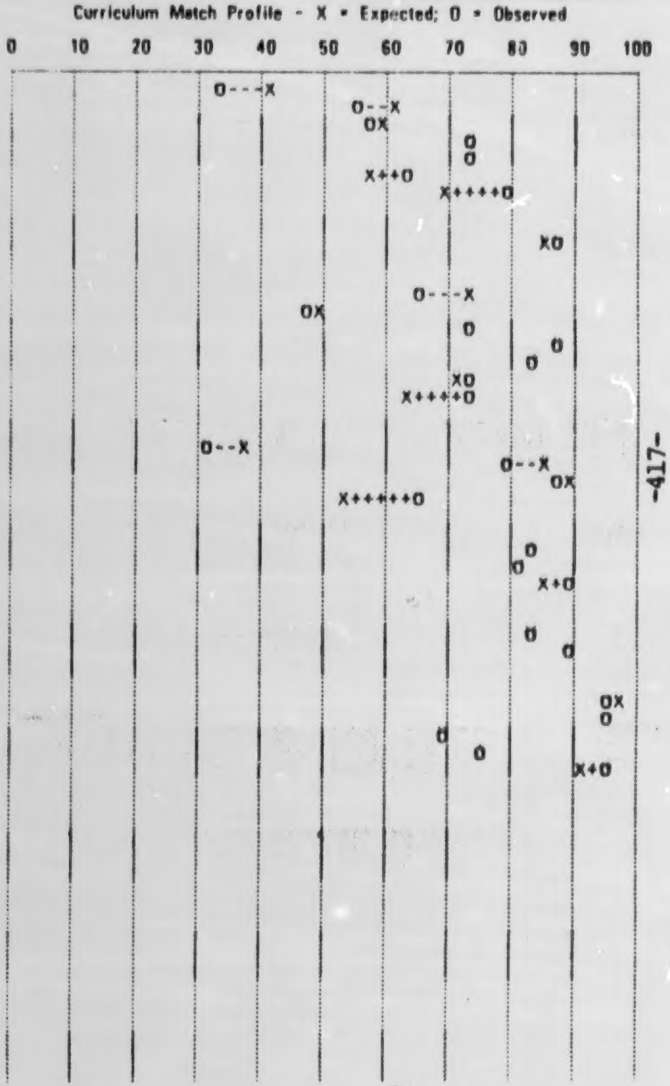
Curriculum Match Profile - X = Expected; O = Observed



LANGUAGE ARTS 306 9,158 MAY-80 1 004-1277..

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 6

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PUNCTUATION				
07	PUNCTUATION-USE OF APOSTROPHES	575	41	34	- 7
05	PUNCTUATION-USE OF APOSTROPHES	527	62	56	- 6
06	PUNCTUATION-USE OF APOSTROPHES	535	59	57	- 2
03	PUNCTUATION-USE OF COMMAS	499	73	74	+ 1
02	PUNCTUATION-USE OF QUOTATION MARKS	500	73	74	+ 1
04	PUNCTUATION-USE OF COMMAS	538	57	63	+ 6
01	PUNCTUATION-USE OF QUOTATION MARKS	512	69	80	+ 11
	DIVISION OF WORD FORMS				
08	WORD DIVISION-SYLLABICATION	455	86	87	+ 1
	USAGE				
14	USAGE-PRONOUN CASE	501	73	66	- 7
09	USAGE - SUBJECT VERB AGREEMENT	556	49	48	- 1
15	USAGE-COMPARATIVES AND SUPERLATIVES	498	74	74	+ 0
10	USAGE - SUBJECT VERB AGREEMENT	450	87	88	+ 1
11	USAGE - DOUBLE NEGATIVES	468	83	84	+ 1
12	USAGE-PRONOUN CASE	506	71	73	+ 2
13	USAGE-ADVERB/ADJECTIVE CONSTRUCTIONS	524	64	73	+ 9
	SENTENCE STRUCTURE				
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	581	38	32	- 6
18	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	85	80	- 5
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	90	88	- 2
19	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	545	54	65	+ 11
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
20	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	84	83	- 1
21	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	477	81	81	+ 0
22	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	462	85	90	+ 5
	BUILDING AND CHANGING SENTENCES				
23	BUILD AND CHANGE SENTENCES-COMPOUNDING	469	83	83	+ 0
24	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	89	89	+ 0
	SPELLING				
25	SPELLING-END LONG VOWEL	379	97	96	- 1
26	SPELL-WORD W/ SHORT VOWEL DIGRAPH	391	96	95	- 1
28	SPELLING-END LONG VOWEL	510	69	69	+ 0
29	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	495	75	75	+ 0
27	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	423	92	95	+ 3

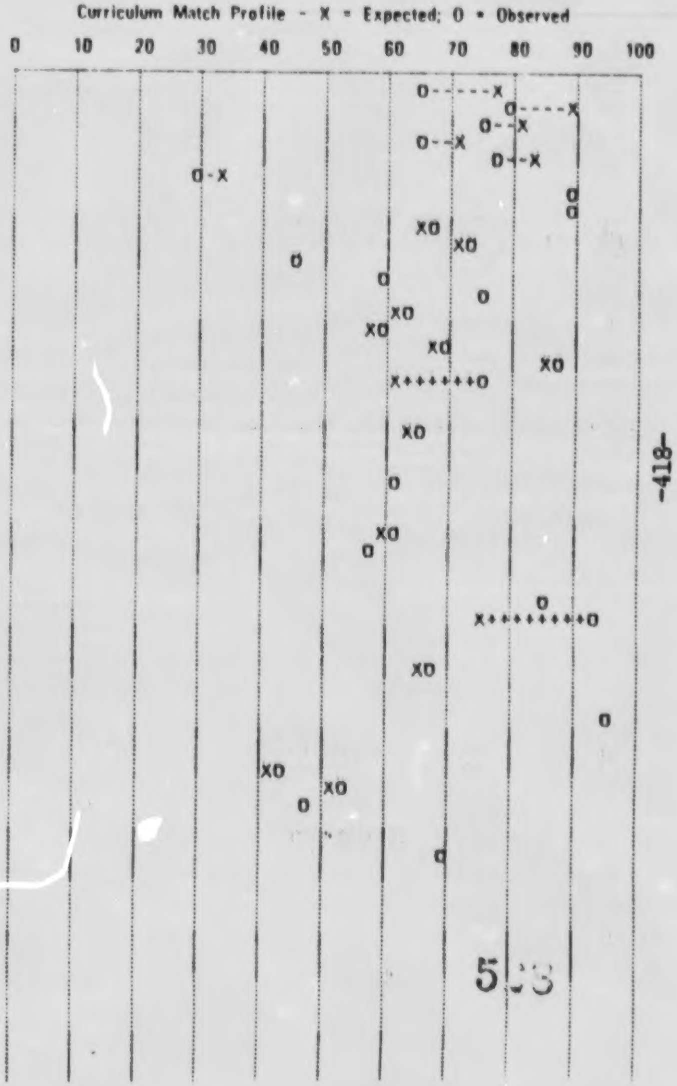


DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

MATHEMATICS 307 7,727 MAY-80 1 005-1585

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 7

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
07	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	510	77	65	- 12
06	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	462	89	80	- 9
03	ADD DECIMALS-PTS UNALIGNED-DIFF DENOM	494	82	75	- 7
08	DIVIDE DECIMAL BY DECIMAL	527	72	65	- 7
05	MULTIPLY 4 DIGIT X 3-4 DIGIT W REGROUPING	490	83	78	- 5
16	MIXED OPER-NO GROUPING SIGNS-INTEGERS	621	34	30	- 4
04	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	89	89	+ 0
18	CONVERT FRACTIONS TO DECIMALS	459	90	90	+ 0
17	CONVERT FRACTIONS TO DECIMALS	543	66	67	+ 1
09	CONVERT PERCENT TO FRACTION	525	72	73	+ 1
20	CONVERT DECIMALS TO FRACTIONS	593	45	46	+ 1
21	CONVERT DECIMALS TO FRACTIONS	560	59	60	+ 1
22	COMPUTE CONVERSION OF FRACTION TO EQUIVALENT	517	75	76	+ 1
23	COMPUTE CONVERSIONS/SIMPLIFICATIONS	553	62	63	+ 1
24	CONVERT DECIMALS TO FRACTIONS	562	58	59	+ 1
25	COMPUTE EXPONENTIAL NOTATION	536	68	69	+ 1
01	ADD MULTIDIGIT INTGRS WITH REGROUP	480	85	87	+ 2
02	SUBTRACT-FRACTIONS-COMMON-UNLIKE DENOMS.	555	61	75	+ 14
	NUMERIC CONCEPTS IN TEXT				
10	PRICE IN ONE-PRODUCT AD	546	64	66	+ 2
	MEASUREMENT APPLICATIONS				
11	APPLY METRIC PLANE MEASUREMENT-LINEAR	556	61	62	+ 1
	APPLY-PROBABILITY & STATISTICS				
12	APPLY-PROBABILITY & STATISTICS-AVERAGES	557	60	61	+ 1
30	APPLY-PROB &STATS-ODDS/PROBABILITY	564	57	58	+ 1
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
14	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	483	85	86	+ 1
13	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	518	75	93	+ 18
	COMPREHEND GEOMETRY				
15	COMPRE IDENTIFYING ANGLES	542	66	67	+ 1
	COMPREHENSION-MEASUREMENT				
19	COMPR-MEASUREMENT-STD UNITS(INCL CALENDAR)	410	96	96	+ 0
	APPLY-USE OF SIMPLE FORMULAS				
27	APPLY-USE SIMPLE GEOMETRIC FORMULAS	601	42	43	+ 1
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	576	52	53	+ 1
26	APPLY-USE SIMPLE GEOMETRIC FORMULAS	590	47	48	+ 1
	COMPUTER KNOWLEDGE				
29	COMPUTER KNOWLEDGE	532	70	70	+ 0



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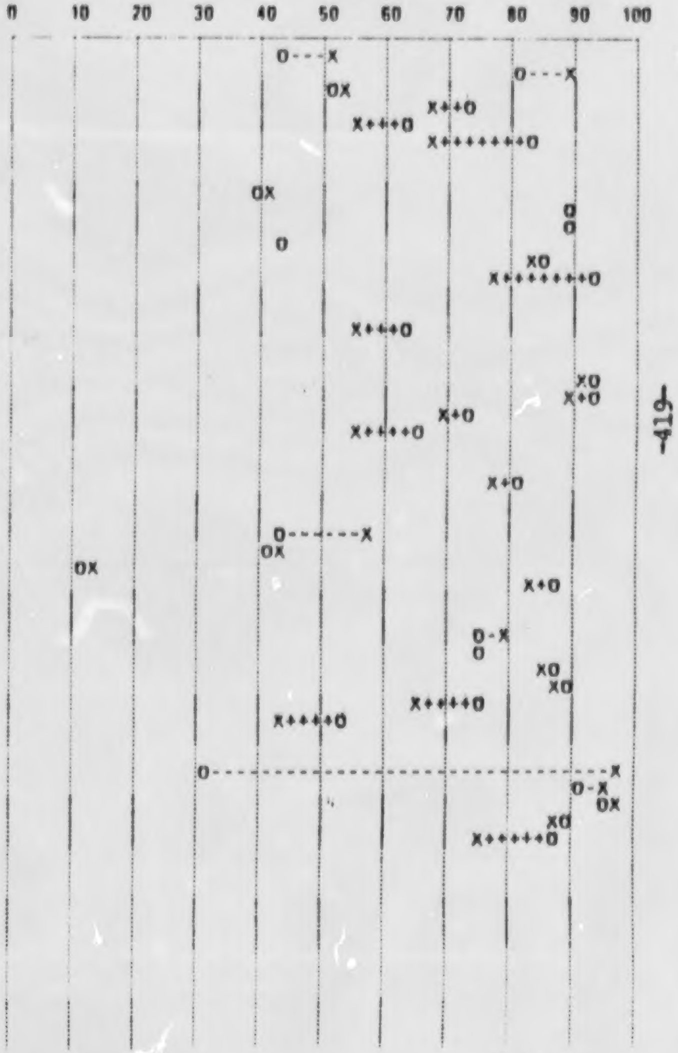
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PUNCTUATION				
05	PUNCTUATION-USE OF APOSTROPHES	575	52	44	- 8
02	PUNCTUATION-USE OF COMMAS	466	89	82	- 7
06	PUNCTUATION-USE OF THE COLON	570	54	51	- 3
03	PUNCTUATION-USE OF COMMAS	539	67	74	+ 7
04	PUNCTUATION-USE OF COMMAS	570	55	63	+ 8
01	PUNCTUATION-USE OF COMMAS	538	68	83	+ 15
	USAGE				
12	USAGE-COMPARATIVES AND SUPERLATIVES	600	41	40	- 1
10	USAGE - DOUBLE NEGATIVES	457	90	90	+ 0
07	USAGE - VERB TENSE	466	89	89	+ 0
11	USAGE-PRONOUN CASE	596	43	44	+ 1
08	USAGE - SUBJECT VERB AGREEMENT	488	84	85	+ 1
09	USAGE - SUBJECT VERB AGREEMENT	513	77	93	+ 16
	SENTENCE PATTERNS				
13	SENTENCE PATTERNS-SUBJECT AND PREDICATE	567	56	64	+ 8
	SENTENCE STRUCTURE				
14	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	450	92	93	+ 1
15	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	90	93	+ 3
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	534	69	74	+ 5
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	568	55	66	+ 11
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
18	BUSINESS LETTER	512	77	81	+ 4
	BUILDING AND CHANGING SENTENCES				
20	BUILDING AND CHANGING SENT - COORDINATION	564	57	44	- 13
22	BUILDING AND CHANGING SENT - SUBORDINATION	593	44	41	- 3
21	BUILDING AND CHANGING SENT - COORDINATION	683	13	11	- 2
19	BUILDING AND CHANGING SENT - COORDINATION	487	84	88	+ 4
	PARAGRAPH DEVELOPMENT				
27	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	504	80	75	- 5
28	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	515	76	76	+ 0
23	PARAGRAPH MAIN IDEA	479	86	87	+ 1
24	PARAGRAPH MAIN IDEA	475	87	89	+ 2
25	PARAGRAPH MAIN IDEA	545	65	75	+ 10
26	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	595	43	53	+ 10
	SPELLING				
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	400	97	32	- 65
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	424	95	92	- 3
29	SPELLING-END LONG VOWEL	379	98	96	- 2
32	SPELLING-LONG MID-SYL VOWEL-MARKER E PTTRN	469	88	89	+ 1
33	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	520	75	87	+ 12

Curriculum Match Profile - X = Expected; O = Observed



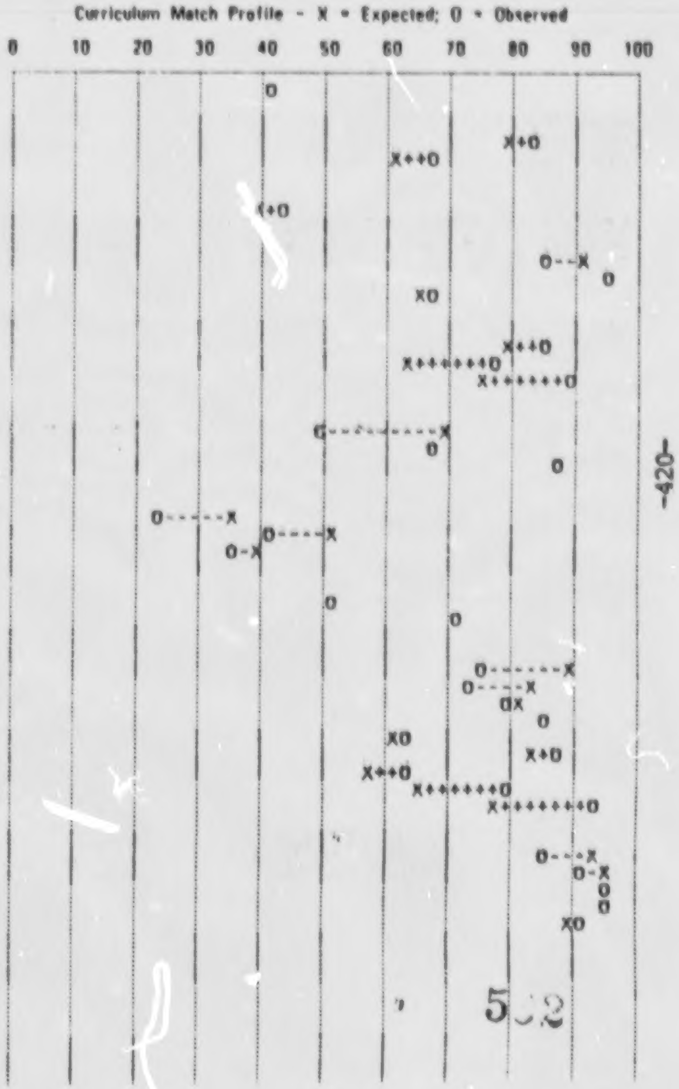
-419-

DEPARTMENT OF DEFENSE
DEPENDENTS SCHOOLS

LANGUAGE ARTS 311 4,879 MAY-80 1 002-3678

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	WORD FORMS				
01	POSSESSIVE FORMS	616	42	42	+ 0
	PUNCTUATION				
02	PUNCTUATION-USE OF COMMAS	520	80	83	+ 3
03	PUNCTUATION-USE OF THE COLON	570	62	68	+ 6
	SENTENCE PATTERNS				
04	SENTENCE PATTERNS-SUBJECT AND PREDICATE	620	39	43	+ [illegible]
	USAGE				
06	USAGE-PRONOUN CASE	466	92	88	- 3
05	USAGE - SUBJECT VERB AGREEMENT	424	96	96	+ 0
07	USAGE - SUBJECT VERB AGREEMENT	560	66	68	+ 2
	SENTENCE STRUCTURE				
10	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	524	79	86	+ 7
09	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	564	64	77	+ 13
08	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	537	75	89	+ 14
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
12	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	550	70	50	- 20
11	BUSINESS LETTER	556	68	68	+ 0
16	BUSINESS LETTER	489	88	88	+ 0
	BUILDING AND CHANGING SENTENCES				
14	BUILD AND CHANGE SENTENCES-INVERTED ORDER	629	36	23	- 13
15	BUILDING AND CHANGING SENT - SUBORDINATION	595	51	41	- 10
13	BUILD AND CHANGE SENT - EMBEDDING (APPOSIT)	621	39	36	- 3
	LEVEL OF GENERALIZATION				
17	LEVEL OF GENERALIZATION	592	52	52	+ 0
18	LEVEL OF GENERALIZATION	546	72	72	+ 0
	PARAGRAPH DEVELOPMENT				
22	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	484	89	75	- 14
24	PATTERNS OF PARAGRAPH DEVELOPMENT	509	83	74	- 9
26	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	512	82	80	- 2
27	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	502	85	86	+ 1
20	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	572	61	64	+ 3
25	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	510	83	87	+ 4
21	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	579	58	64	+ 6
23	PATTERNS OF PARAGRAPH DEVELOPEMENT	559	66	79	+ 13
19	PARAGRAPH MAIN IDEA	531	77	93	+ 16
	SPELLING				
29	SPELLING-CONSONANT UNITS	455	93	86	- 7
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	443	95	91	- 4
32	SPELLING-UNCOMMON VOWEL UNIT	427	96	95	- 1
31	SPELLING-CONSONANT UNITS	438	95	95	+ 0
28	SPELLING-PREFIXES	485	89	92	+ 3

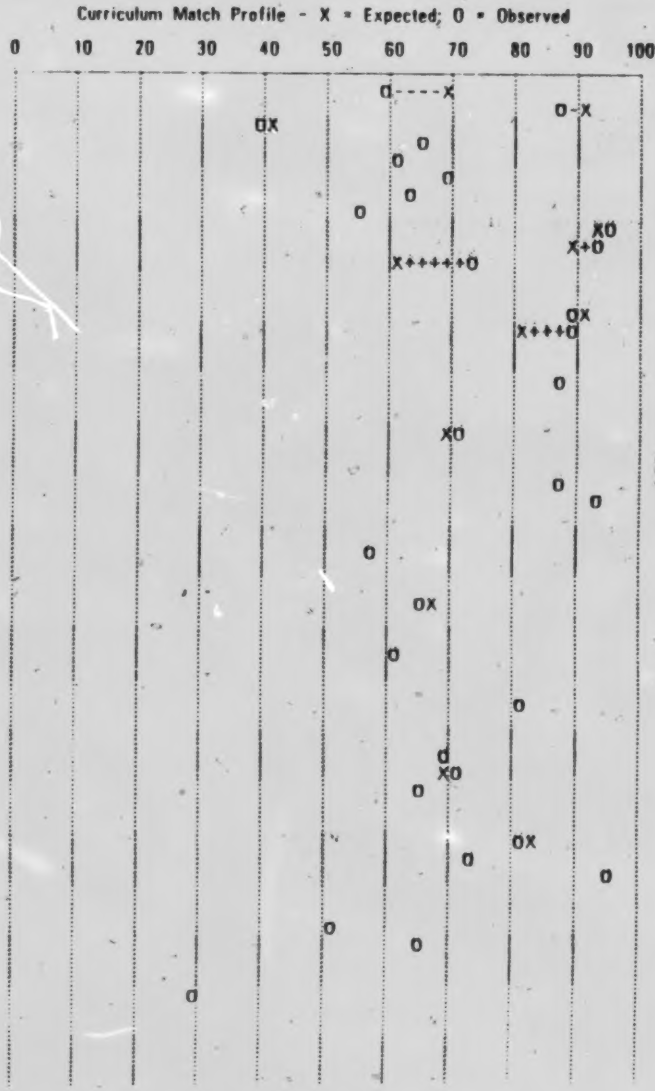


MATHEMATICS 311 4,934 MAY-80 1 002-3677

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 11

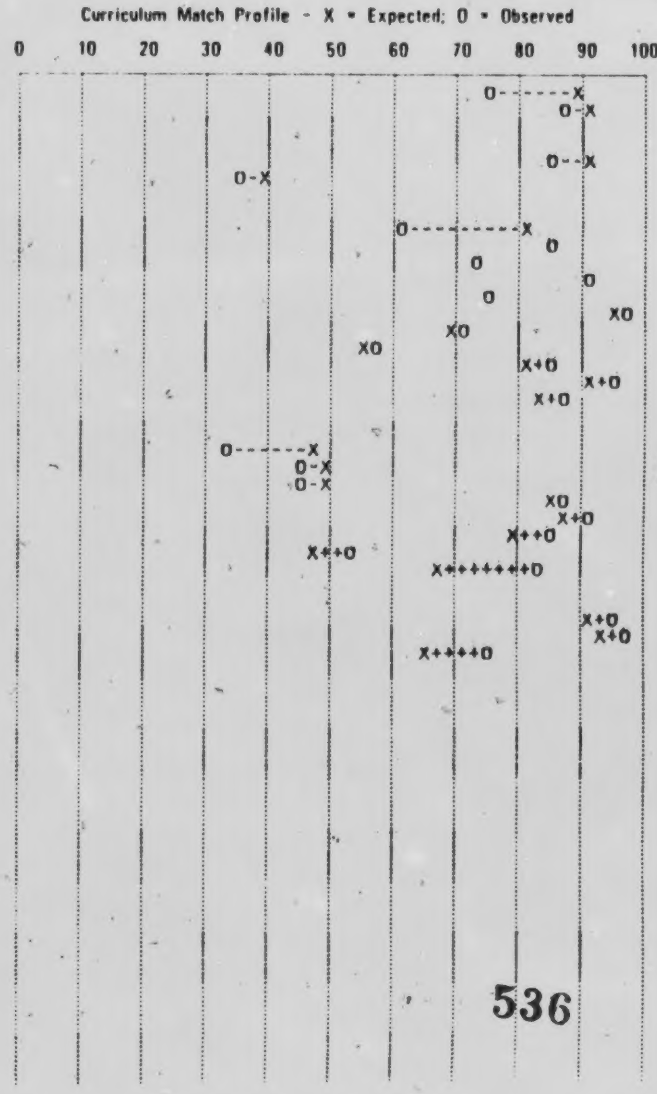
Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
04	ADD MIXED FRACTIONS WITH UNLIKE DENOMIN	568	69	60	- 9
02	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	479	91	87	- 4
15	MIXED OPER-NO GROUPING SIGNS-MIXED FORMAT	639	42	40	- 2
06	DIVIDE MIXED FRACTION BY WHOLE NUMBER	576	66	66	+ 0
08	CONVERT DECIMALS TO FRACTIONS	588	62	62	+ 0
09	CONVERT PERCENT TO FRACTION	569	69	69	+ 0
10	CONVERT FRACTION TO PERCENT	581	64	64	+ 0
05	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	603	56	56	+ 0
03	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	94	96	+ 2
01	ADD MULTIDIGIT INTGRS WITH REGROUP	495	89	93	+ 4
07	MULTIPLY MULTI-PLACE DECIMALS	586	62	74	+ 12
	APPLY-ALGEBRA				
12	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	475	92	90	- 2
11	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	529	81	89	+ 8
	COMPUTER KNOWLEDGE				
13	COMPUTER KNOWLEDGE	498	88	88	+ 0
	APPLY-ARITHMETIC PROPERTIES				
14	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	70	71	+ 1
	MEASUREMENT APPLICATIONS				
16	APPLY-TIME-MIXED OPERATIONS	503	87	87	+ 0
19	APPLY-MONEY-MULTIPLYING	469	93	93	+ 0
	APPLY-PROBABILITY & STATISTICS				
17	APPLY-PROBABILITY & STATISTICS-AVERAGES	597	58	57	- 1
	ARITHMETIC APPLICATIONS				
18	APPLY DIVISION-DECIMALS	573	67	66	- 1
	APPLY-PERCENTS				
20	APPLY-PERCENTS-MONEY SITUATIONS	588	61	62	+ 1
	DOMESTIC SKILLS				
21	DOMESTIC SKILLS-QUANTITIES	529	81	81	+ 0
	APPLY-USE OF SIMPLE FORMULAS				
22	APPLY-USE SIMPLE GEOMETRIC FORMULAS	567	69	70	+ 1
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	564	70	71	+ 1
29	APPLY-USE SIMPLE GEOMETRIC FORMULAS	579	65	66	+ 1
	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)				
23	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	518	84	81	- 3
24	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	553	74	74	+ 0
25	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	452	95	95	+ 0
	COMPREHEND GEOMETRY				
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	613	52	51	- 1
26	COMPRE IDENTIFYING ANGLES	578	65	66	+ 1
	MEASUREMENT COMPUTATION				
30	SOLID METRIC SQUARE MEASUREMENT	676	29	29	+ 0



ATLANTIC READING 311 693 MAY-80 1 1 003-3480

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
02	STUDY SKILLS - INDEX USE	523	89	75	- 14
01	REFERENCING AUTHORS	514	91	88	- 3
03	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	92	86	- 6
04	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	654	39	36	- 3
	INTERPRETIVE COMPREHENSION				
15	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	82	61	- 21
12	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	540	86	85	- 1
22	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	74	74	+ 0
23	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	516	91	91	+ 0
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	572	76	76	+ 0
07	INTERPRETIVE COMPREHENSION-SUBORD. DETAIL	488	95	97	+ 2
08	INTER COMP - CAUSE AND EFFECT	590	69	71	+ 2
21	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	621	55	57	+ 2
11	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	553	82	86	+ 4
09	INTERPRETIVE COMP.-COMPARE AND CONTRAST	512	91	96	+ 5
05	INTERPRETIVE COMPREHENSION-MAIN IDEA	550	83	88	+ 5
	EVALUATIVE COMPREHENSION				
17	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	637	47	33	- 14
06	EVAL COMP - IDENT PROB NEW USES RESEARCH	633	49	45	- 4
24	EVAL COMP - STYLES TECHNIQUES AND FORMS	631	49	46	- 3
25	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	538	86	88	+ 2
10	EVAL COMP - PREDICTIVE OUTCOMES	533	87	92	+ 5
13	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	563	79	85	+ 6
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	637	47	54	+ 7
14	EVAL COMP - JUDGE VALIDITY OF CONCLUSION	593	68	83	+ 15
	WORD MEANING				
19	WORD MEANING-CONTEXTUAL MEANING	506	92	95	+ 3
20	WORD MEANING-LITERAL MEANING	502	93	98	+ 5
18	WORD MEANING-CONTEXTUAL MEANING	596	66	75	+ 9

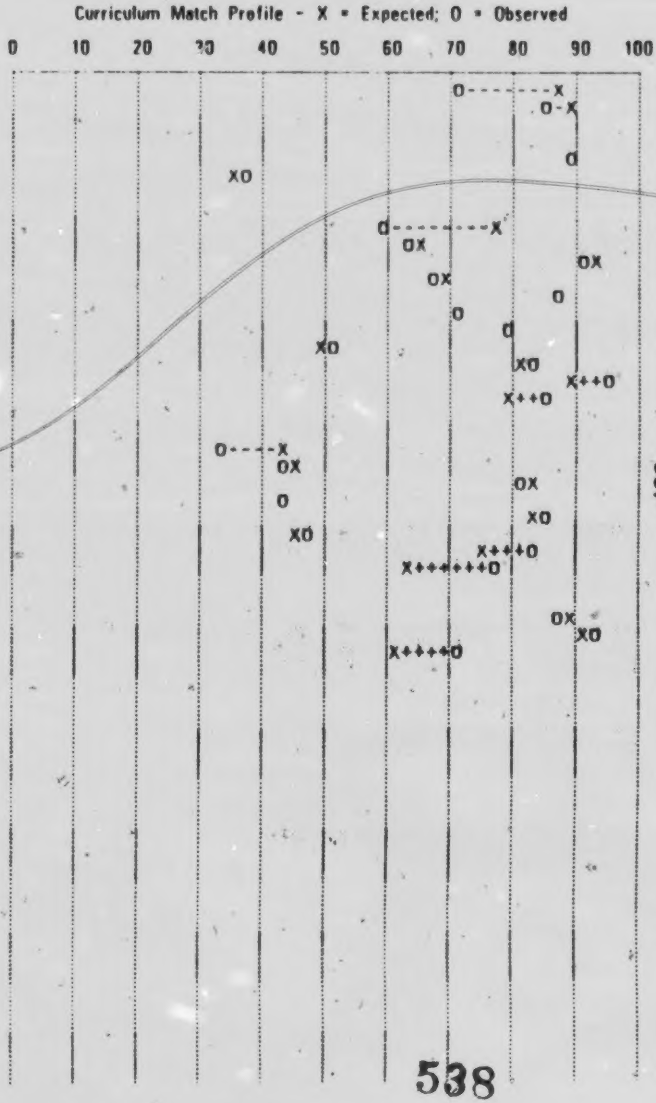


DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

GERMANY NORTH READING 311 1,594 MAY-80 2 1 005-0400

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

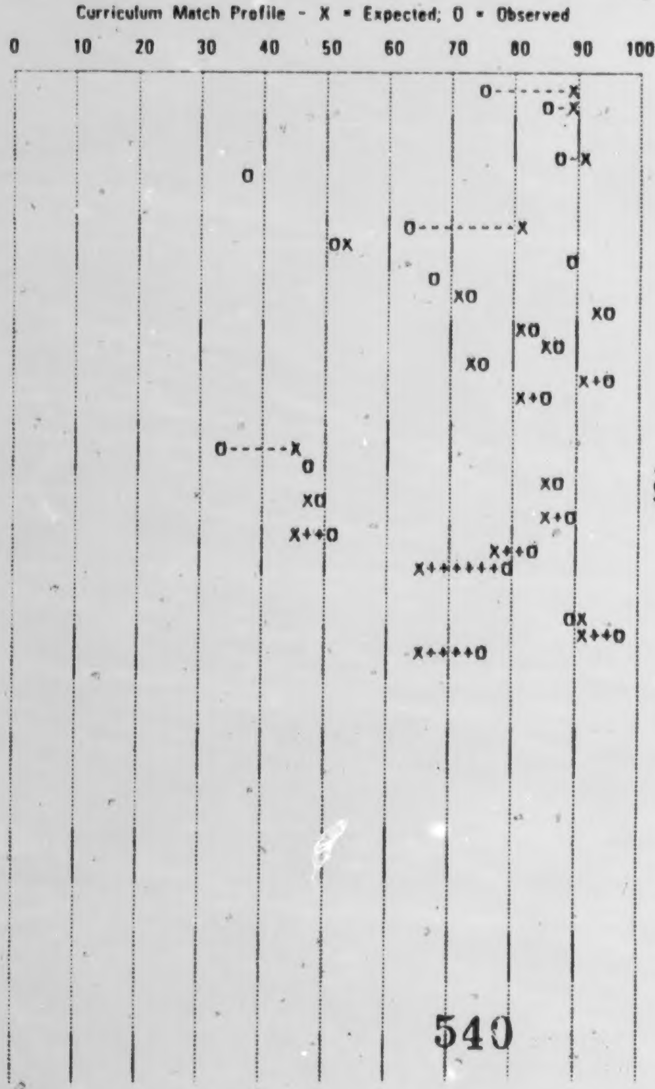
Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
02	STUDY SKILLS - INDEX USE	523	87	71	- 16
01	REFERENCING AUTHORS	514	89	85	- 4
03	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	90	89	- 1
04	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	654	35	37	+ 2
	INTERPRETIVE COMPREHENSION				
15	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	78	60	- 18
08	INTER COMP - CAUSE AND EFFECT	590	65	64	- 1
07	INTERPRETIVE COMPREHENSION-SUBORD. DETAIL	488	93	92	- 1
22	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	69	68	- 1
23	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	516	88	87	- 1
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	572	72	71	- 1
11	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	553	79	80	+ 1
21	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	621	50	52	+ 2
12	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	540	82	84	+ 2
09	INTERPRETIVE COMP.-COMPARE AND CONTRAST	512	89	95	+ 6
05	INTERPRETIVE COMPREHENSION-MAIN IDEA	550	79	86	+ 7
	EVALUATIVE COMPREHENSION				
17	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	637	43	34	- 9
24	EVAL COMP - STYLES TECHNIQUES AND FORMS	631	46	44	- 2
25	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	538	83	82	- 1
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	637	43	44	+ 1
10	EVAL COMP - PREDICTIVE OUTCOMES	533	84	86	+ 2
06	EVAL COMP - IDENT PROB NEW USES RESEARCH	633	45	48	+ 3
13	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	563	75	84	+ 9
14	EVAL COMP - JUDGE VALIDITY OF CONCLUSION	593	63	78	+ 15
	WORD MEANING				
19	WORD MEANING-CONTEXTUAL MEANING	506	90	87	- 3
20	WORD MEANING-LITERAL MEANING	502	91	93	+ 2
18	WORD MEANING-CONTEXTUAL MEANING	596	62	72	+ 10



GERMANY SOUTH READING 311 1,120 MAY-80 3 [illegible] 002-6127

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
02	STUDY SKILLS - INDEX USE	523	89	75	- 14
01	REFERENCING AUTHORS	514	90	85	- 5
03	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	91	87	- 4
04	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	654	38	38	+ 0
	INTERPRETIVE COMPREHENSION	-			
15	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	81	63	- 18
21	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	621	53	51	- 2
23	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	516	90	89	- 1
08	INTER COMP - CAUSE AND EFFECT	590	68	68	+ 0
22	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	72	73	+ 1
07	INTERPRETIVE COMPREHENSION-SUBORD. DETAIL	488	94	95	+ 1
11	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	553	81	83	+ 2
12	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	540	85	87	+ 2
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	572	74	76	+ 2
09	INTERPRETIVE COMP.-COMPARE AND CONTRAST	512	91	95	+ 4
05	INTERPRETIVE COMPREHENSION-MAIN IDEA	550	82	86	+ 4
	EVALUATIVE COMPREHENSION				
17	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	637	46	34	- 12
06	EVAL COMP - IDENT PROB NEW USES RESEARCH	633	48	47	- 1
25	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	538	85	87	+ 2
24	EVAL COMP - STYLES TECHNIQUES AND FORMS	631	48	50	+ 2
10	EVAL COMP - PREDICTIVE OUTCOMES	533	86	89	+ 3
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	637	46	51	+ 5
13	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	563	78	84	+ 6
14	EVAL COMP - JUDGE VALIDITY OF CONCLUSION	593	66	80	+ 14
	WORD MEANING				
19	WORD MEANING-CONTEXTUAL MEANING	506	91	90	- 1
20	WORD MEANING-LITERAL MEANING	502	92	97	+ 5
18	WORD MEANING-CONTEXTUAL MEANING	596	65	75	+ 10

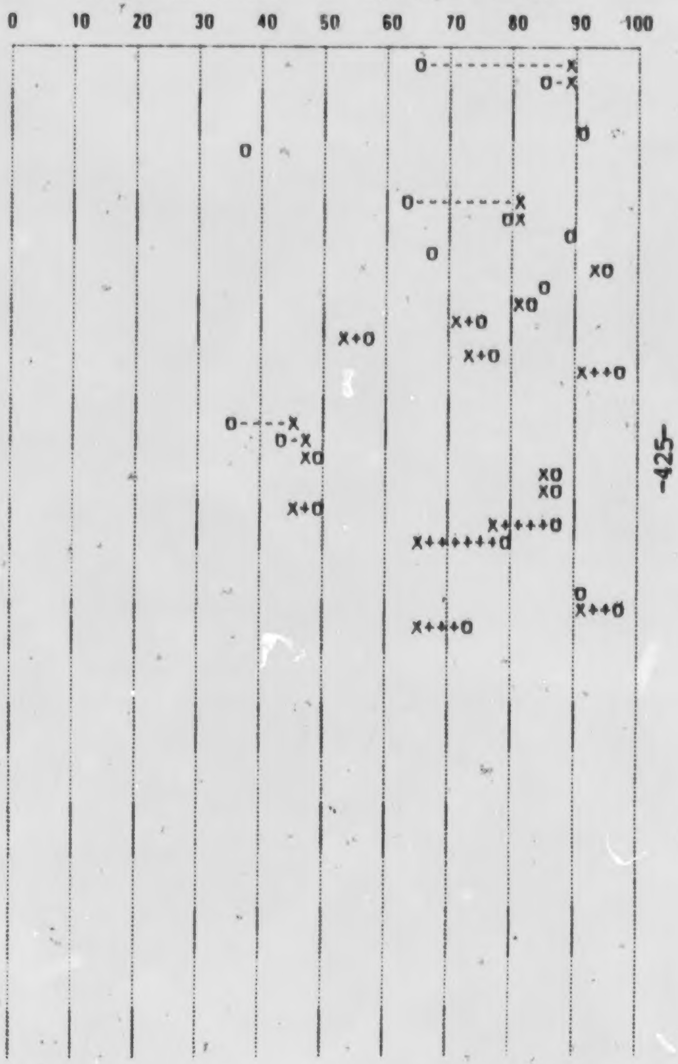


MEDITERRANEAN READING 311 435 MAY-80 4 1 006-5812

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
02	STUDY SKILLS - INDEX USE	523	89	66	- 23
01	REFERENCING AUTHORS	514	90	85	- 5
03	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	91	91	+ 0
04	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	654	37	38	+ 1
	INTERPRETIVE COMPREHENSION				
15	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	81	63	- 18
11	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	553	81	80	- 1
23	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	516	90	89	- 1
08	INTER COMP - CAUSE AND EFFECT	590	67	67	+ 0
07	INTERPRETIVE COMPREHENSION-SUBORD. DETAIL	488	94	95	+ 1
12	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	540	85	86	+ 1
05	INTERPRETIVE COMPREHENSION-MAIN IDEA	550	82	84	+ 2
22	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	72	75	+ 3
21	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	621	53	57	+ 4
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	572	74	78	+ 4
09	INTERPRETIVE COMP.-COMPARE AND CONTRAST	512	91	97	+ 6
	EVALUATIVE COMPREHENSION				
17	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	637	45	35	- 10
06	EVAL COMP - IDENT PROB NEW USES RESEARCH	633	47	44	- 3
24	EVAL COMP - STYLES TECHNIQUES AND FORMS	631	48	49	+ 1
10	EVAL COMP - PREDICTIVE OUTCOMES	533	86	87	+ 1
25	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	538	85	87	+ 2
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	637	45	49	+ 4
13	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	563	78	88	+ 10
14	EVAL COMP - JUDGE VALIDITY OF CONCLUSION	593	66	79	+ 13
	WORD MEANING				
19	WORD MEANING-CONTEXTUAL MEANING	506	92	92	+ 0
20	WORD MEANING-LITERAL MEANING	502	92	97	+ 5
18	WORD MEANING-CONTEXTUAL MEANING	596	65	73	+ 8

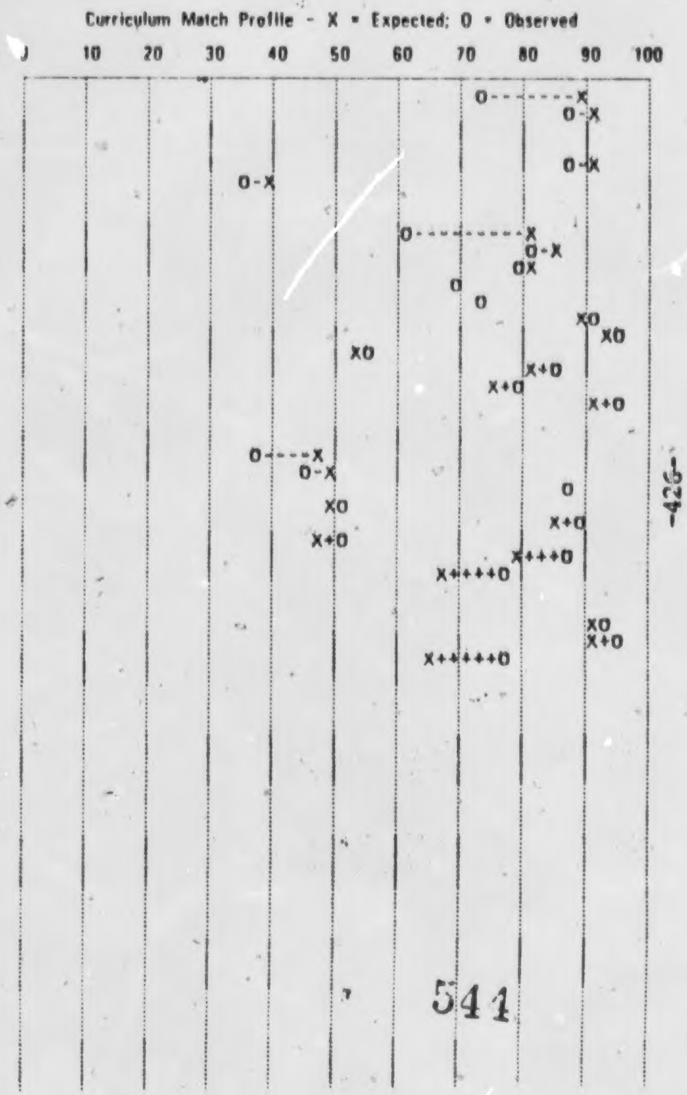
Curriculum Match Profile - X = Expected; O = Observed



PACIFIC READING 311 640 MAY-80 5 1 007-5471

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
02	STUDY SKILLS - INDEX USE	523	89	74	- 15
01	REFERENCING AUTHORS	514	91	87	- 4
03	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	92	87	- 5
04	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	654	39	36	- 3
	INTERPRETIVE COMPREHENSION				
15	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	81	61	- 20
12	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	540	85	82	- 3
11	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	553	82	79	- 3
08	INTER COMP - CAUSE AND EFFECT	590	69	70	+ 1
22	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	73	74	+ 1
23	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	516	90	91	+ 1
07	INTERPRETIVE COMPREHENSION-SUBORD. DETAIL	488	94	96	+ 2
21	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	621	54	56	+ 2
05	INTERPRETIVE COMPREHENSION-MAIN IDEA	550	82	85	+ 3
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	572	75	79	+ 4
09	INTERPRETIVE COMP.-COMPARE AND CONTRAST	512	91	96	+ 5
	EVALUATIVE COMPREHENSION				
17	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	637	47	38	- 9
06	EVAL COMP - IDENT PROB NEW USES RESEARCH	633	49	45	- 4
10	EVAL COMP - PREDICTIVE OUTCOMES	533	87	87	+ 0
24	EVAL COMP - STYLES TECHNIQUES AND FORMS	631	49	52	+ 3
25	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	538	86	90	+ 4
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	637	47	51	+ 4
13	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	563	79	88	+ 9
14	EVAL COMP - JUDGE VALIDITY OF CONCLUSION	593	67	78	+ 11
	WORD MEANING				
19	WORD MEANING-CONTEXTUAL MEANING	506	92	93	+ 1
20	WORD MEANING-LITERAL MEANING	502	92	95	+ 3
18	WORD MEANING-CONTEXTUAL MEANING	596	66	78	+ 12



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544

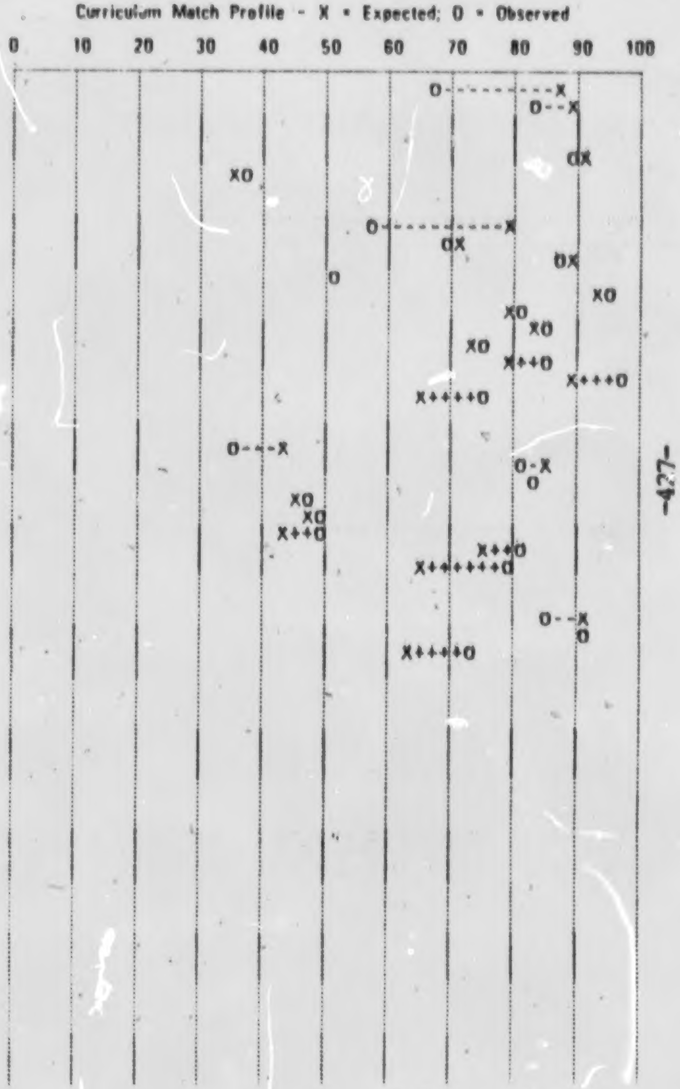
-426-

DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

PANAMA READING 311 463 MAY-80 6 1 002-3848

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
02	STUDY SKILLS - INDEX USE	523	88	68	- 20
01	REFERENCING AUTHORS	514	89	83	- 6
03	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	91	89	- 2
04	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	654	36	38	+ 2
	INTERPRETIVE COMPREHENSION				
15	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	79	58	- 21
22	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	71	69	- 2
23	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	516	89	88	- 1
21	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	621	52	52	+ 0
07	INTERPRETIVE COMPREHENSION-SUBORD. DETAIL	488	94	95	+ 1
11	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	553	80	81	+ 1
12	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	540	83	85	+ 2
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	572	73	76	+ 3
05	INTERPRETIVE COMPREHENSION-MAIN IDEA	550	80	85	+ 5
09	INTERPRETIVE COMP.-COMPARE AND CONTRAST	512	90	97	+ 7
08	INTER COMP - CAUSE AND EFFECT	590	66	76	+ 10
	EVALUATIVE COMPREHENSION				
17	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	637	44	36	- [illegible]
10	EVAL COMP - PREDICTIVE OUTCOMES	533	85	82	[illegible]
25	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	538	84	83	[illegible] 1
06	EVAL COMP - IDENT PROB NEW USES RESEARCH	633	46	47	+ 1
24	EVAL COMP - STYLES TECHNIQUES AND FORMS	631	47	50	+ 3
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	637	44	50	+ 6
13	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	563	76	82	+ 6
14	EVAL COMP - JUDGE VALIDITY OF CONCLUSION	593	65	80	+ 15
	WORD MEANING				
19	WORD MEANING-CONTEXTUAL MEANING	506	91	86	- 5
20	WORD MEANING-LITERAL MEANING	502	91	92	+ 1
18	WORD MEANING-CONTEXTUAL MEANING	596	63	73	+ 10

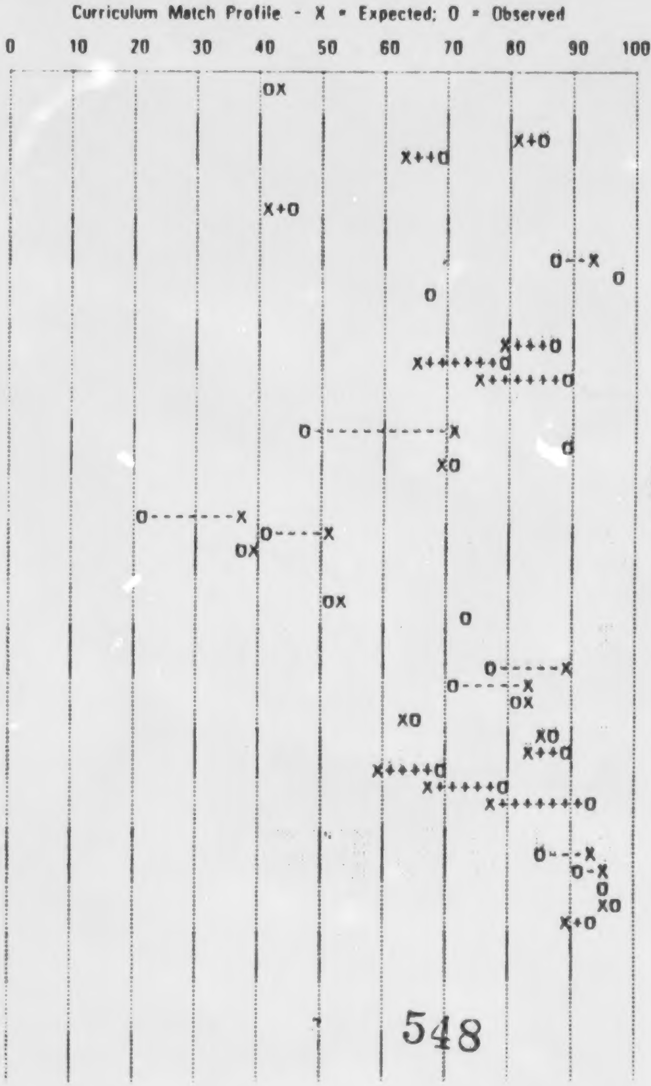


DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

ATLANTIC LANGUAGE ARTS 311 688 MAY-80 1 1 003-3480

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	WORD FORMS				
01	POSSESSIVE FORMS	616	43	42	- 1
	PUNCTUATION				
02	PUNCTUATION-USE OF COMMAS	520	81	85	+ 4
03	PUNCTUATION-USE OF THE COLON	570	63	69	+ 6
	SENTENCE PATTERNS				
04	SENTENCE PATTERNS-SUBJECT AND PREDICATE	620	41	45	+ 4
	USAGE				
06	USAGE-PRONOUN CASE	466	93	88	- 5
05	USAGE - SUBJECT VERB AGREEMENT	424	97	97	+ 0
07	USAGE - SUBJECT VERB AGREEMENT	560	67	68	+ 1
	SENTENCE STRUCTURE				
10	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	524	80	87	+ 7
09	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	564	66	80	+ 14
08	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	537	76	90	+ 14
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
12	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	550	72	48	- 24
16	BUSINESS LETTER	489	89	90	+ 1
11	BUSINESS LETTER	556	69	71	+ 2
	BUILDING AND CHANGING SENTENCES				
14	BUILD AND CHANGE SENTENCES-INVERTED ORDER	629	37	22	- 15
15	BUILDING AND CHANGING SENT - SUBORDINATION	595	52	42	- 10
13	BUILD AND CHANGE SENT - EMBEDDING (APPOSIT)	621	40	38	- 2
	LEVEL OF GENERALIZATION				
17	LEVEL OF GENERALIZATION	592	54	52	- 2
18	LEVEL OF GENERALIZATION	546	73	73	+ 0
	PARAGRAPH DEVELOPMENT				
22	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	484	90	77	- 13
24	PATTERNS OF PARAGRAPH DEVELOPEMENT	509	84	72	- 12
26	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	512	84	82	- 2
20	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	572	63	65	+ 2
27	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	502	86	88	+ 2
25	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	510	84	89	+ 5
21	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	579	59	69	+ 10
23	PATTERNS OF PARAGRAPH DEVELOPEMENT	559	68	80	+ 12
19	PARAGRAPH MAIN IDEA	531	78	93	+ 15
	SPELLING				
29	SPELLING-CONSONANT UNITS	455	94	86	- 8
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	443	95	91	- 4
31	SPELLING-CONSONANT UNITS	438	96	96	+ 0
32	SPELLING-UNCOMMON VOWEL UNIT	427	96	97	+ 1
28	SPELLING-PREFIXES	485	89	93	+ 4

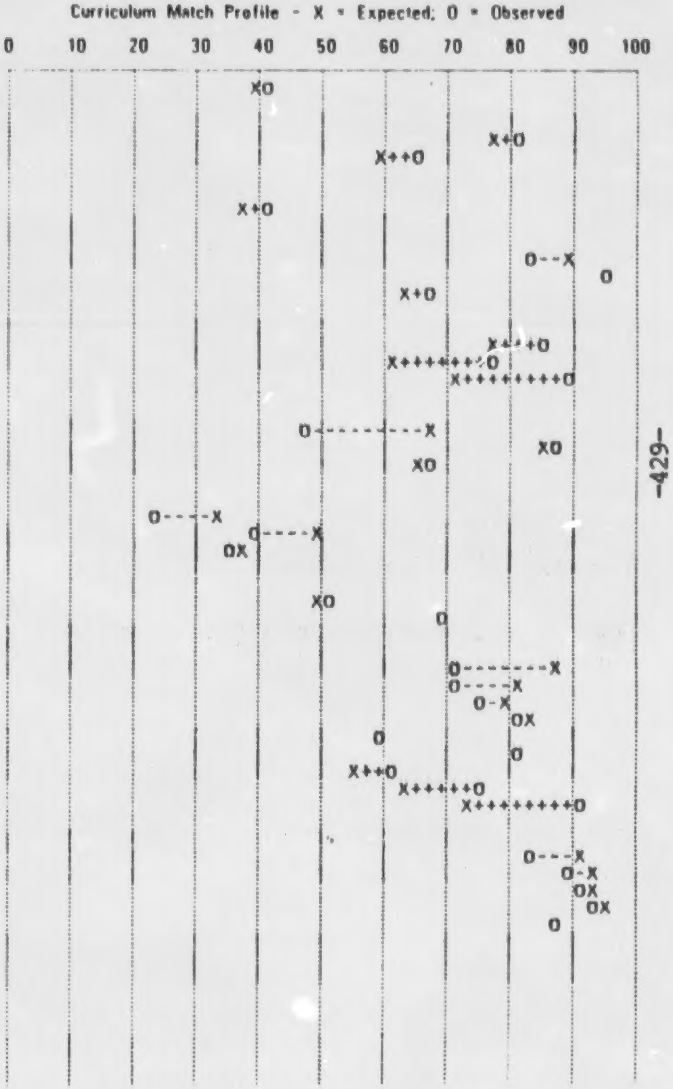


DEPARTMENT OF DEFENSE

GERMANY NORTH LANGUAGE ARTS 311 1,558 MAY-80 2 1 005-0382

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	WORD FORMS				
01	POSSESSIVE FORMS	616	40	41	+ 1
	PUNCTUATION				
02	PUNCTUATION-USE OF COMMAS	520	78	81	+ 3
03	PUNCTUATION-USE OF THE COLON	570	59	65	+ 6
	SENTENCE PATTERNS				
04	SENTENCE PATTERNS-SUBJECT AND PREDICATE	620	38	42	+ 4
	USAGE				
06	USAGE-PRONOUN CASE	466	90	84	- 6
05	USAGE - SUBJECT VERB AGREEMENT	424	95	95	+ 0
07	USAGE - SUBJECT VERB AGREEMENT	560	63	67	+ 4
	SENTENCE STRUCTURE				
10	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	524	77	86	+ 9
09	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	564	62	77	+ 15
08	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	537	72	89	+ 17
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
12	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	550	68	47	- 21
16	BUSINESS LETTER	489	86	87	+ 1
11	BUSINESS LETTER	556	65	67	+ 2
	BUILDING AND CHANGING SENTENCES				
14	BUILD AND CHANGE SENTENCES-INVERTED ORDER	629	34	23	- 11
15	BUILDING AND CHANGING SENT - SUBORDINATION	595	49	40	- 9
13	BUILD AND CHANGE SENT - EMBEDDING (APPOSIT)	621	37	35	- 2
	LEVEL OF GENERALIZATION				
17	LEVEL OF GENERALIZATION	592	50	51	+ 1
18	LEVEL OF GENERALIZATION	546	69	70	+ 1
	PARAGRAPH DEVELOPMENT				
22	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	484	87	71	- 16
24	PATTERNS OF PARAGRAPH DEVELOPEMENT	509	81	72	- 9
26	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	512	80	76	- 4
27	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	502	83	82	- 1
20	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	572	59	59	+ 0
25	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	510	81	82	+ 1
21	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	579	56	61	+ 5
23	PATTERNS OF PARAGRAPH DEVELOPEMENT	559	64	75	+ 11
19	PARAGRAPH MAIN IDEA	531	74	91	+ 17
	SPELLING				
29	SPELLING-CONSONANT UNITS	455	92	84	- 8
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	443	93	89	- 4
31	SPELLING-CONSONANT UNITS	438	94	91	- 3
32	SPELLING-UNCOMMON VOWEL UNIT	427	95	93	- 2
28	SPELLING-PREFIXES	485	87	88	+ 1



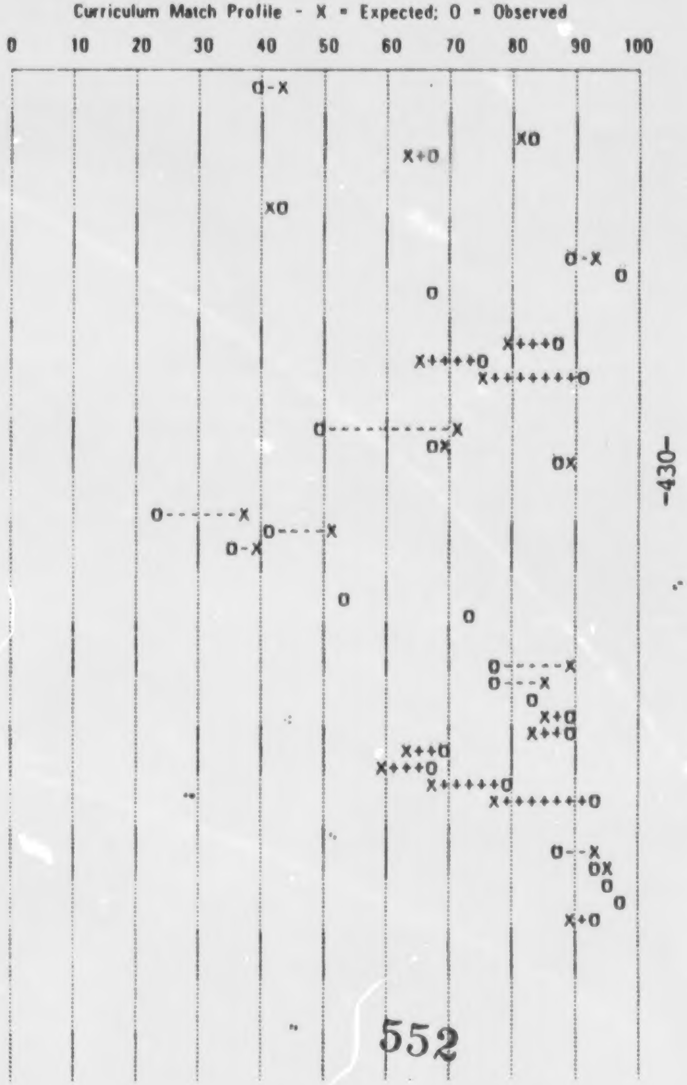
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

GERMANY SOUTH LANGUAGE ARTS 311 1,101 MAY-80 3 1 002-6127

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	WORD FORMS				
01	POSSESSIVE FORMS	616	43	40	- 3
	PUNCTUATION				
02	PUNCTUATION-USE OF COMMAS	520	82	83	+ 1
03	PUNCTUATION-USE OF THE COLON	570	63	68	+ 5
	SENTENCE PATTERNS				
04	SENTENCE PATTERNS-SUBJECT AND PREDICATE	620	41	43	+ 2
	USAGE				
06	USAGE-PRONOUN CASE	466	93	90	- 3
05	USAGE - SUBJECT VERB AGREEMENT	424	97	97	+ 0
07	USAGE - SUBJECT VERB AGREEMENT	560	67	68	+ 1
	SENTENCE STRUCTURE				
10	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	524	80	88	+ 8
09	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	564	66	76	+ 10
08	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	537	76	92	+ 16
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
12	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	550	72	49	- 23
11	BUSINESS LETTER	556	69	68	- 1
16	BUSINESS LETTER	489	89	88	- 1
	BUILDING AND CHANGING SENTENCES				
14	BUILD AND CHANGE SENTENCES-INVERTED ORDER	629	37	23	- 14
15	BUILDING AND CHANGING SENT - SUBORDINATION	595	52	41	- 11
13	BUILD AND CHANGE SENT - EMBEDDING (APPOSIT)	621	40	36	- 4
	LEVEL OF GENERALIZATION				
17	LEVEL OF GENERALIZATION	592	54	54	+ 0
18	LEVEL OF GENERALIZATION	546	73	74	+ 1
	PARAGRAPH DEVELOPMENT				
22	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	484	90	77	- 13
24	PATTERNS OF PARAGRAPH DEVELOPEMENT	509	85	77	- 8
26	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	512	84	83	- 1
27	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	502	86	89	+ 3
25	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	510	84	89	+ 5
20	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	572	63	69	+ 6
21	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	579	59	67	+ 8
23	PATTERNS OF PARAGRAPH DEVELOPEMENT	559	68	80	+ 12
19	PARAGRAPH MAIN IDEA	531	78	94	+ 16
	SPELLING				
29	SPELLING-CONSONANT UNITS	455	94	88	- 6
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	443	95	93	- 2
31	SPELLING-CONSONANT UNITS	438	96	95	- 1
32	SPELLING-UNCOMMON VOWEL UNIT	427	97	97	+ 0
28	SPELLING-PREFIXES	485	90	94	+ 4

Curriculum Match Profile - X = Expected; O = Observed



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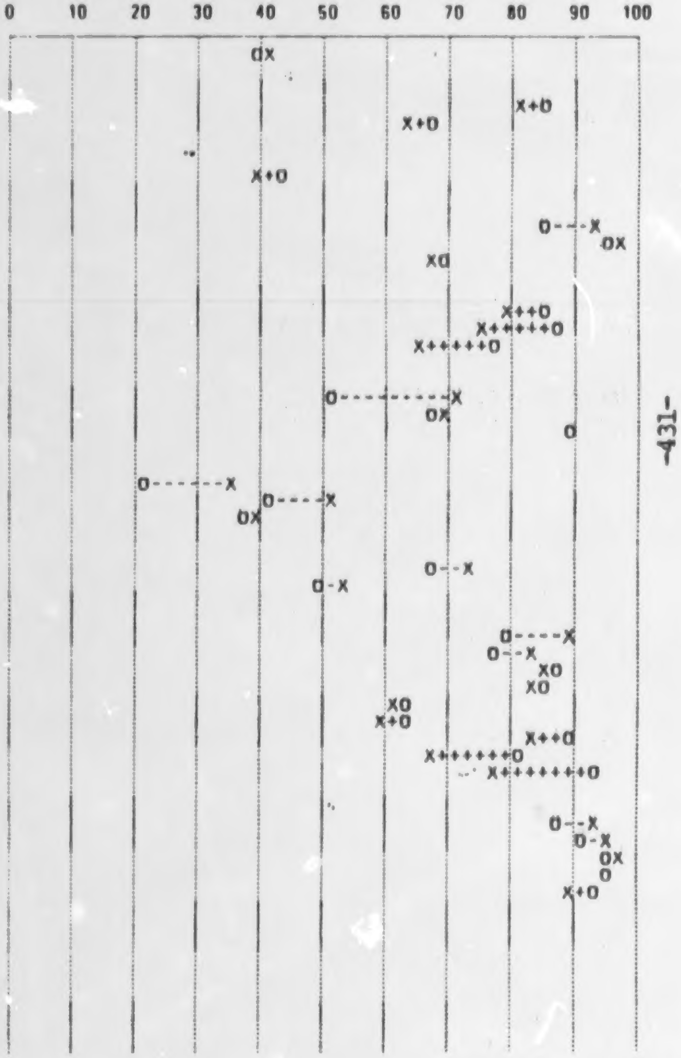
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

MEDITERRANEAN LANGUAGE ARTS 311 430 MAY-80 4 1 006-5797

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	WORD FORMS				
01	POSSESSIVE FORMS	616	42	39	- 3
	PUNCTUATION				
02	PUNCTUATION-USE OF COMMAS	520	81	86	+ 5
03	PUNCTUATION-USE OF THE COLON	570	63	68	+ 5
	SENTENCE PATTERNS				
04	SENTENCE PATTERNS-SUBJECT AND PREDICATE	620	40	43	+ 3
	USAGE				
06	USAGE-PRONOUN CASE	466	93	85	- 8
05	USAGE - SUBJECT VERB AGREEMENT	424	97	96	- 1
07	USAGE - SUBJECT VERB AGREEMENT	560	67	70	+ 3
	SENTENCE STRUCTURE				
10	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	524	80	86	+ 6
08	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	537	76	87	+ 11
09	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	564	65	78	+ 13
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
12	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	550	71	51	- 20
11	BUSINESS LETTER	556	69	68	- 1
16	BUSINESS LETTER	489	89	89	+ 0
	BUILDING AND CHANGING SENTENCES				
14	BUILD AND CHANGE SENTENCES-INVERTED ORDER	629	36	21	- 15
15	BUILDING AND CHANGING SENT - SUBORDINATION	595	51	42	- 9
13	BUILD AND CHANGE SENT - EMBEDDING (APPOSIT)	621	39	38	- 1
	LEVEL OF GENERALIZATION				
18	LEVEL OF GENERALIZATION	546	73	68	- 5
17	LEVEL OF GENERALIZATION	592	53	50	- 3
	PARAGRAPH DEVELOPMENT				
22	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	484	90	79	- 11
24	PATTERNS OF PARAGRAPH DEVELOPEMENT	509	84	77	- 7
27	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	502	86	87	+ 1
26	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	512	84	86	+ 2
20	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	572	62	64	+ 2
21	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	579	59	64	+ 5
25	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	510	84	90	+ 6
23	PATTERNS OF PARAGRAPH DEVELOPEMENT	559	67	82	+ 15
19	PARAGRAPH MAIN IDEA	531	78	94	+ 16
	SPELLING				
29	SPELLING-CONSONANT UNITS	455	94	88	- 6
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	443	95	91	- 4
32	SPELLING-UNCOMMON VOWEL UNIT	427	97	96	- 1
31	SPELLING-CONSONANT UNITS	438	96	96	+ 0
28	SPELLING-PREFIXES	485	90	94	+ 4

Curriculum Match Profile - X = Expected; O = Observed



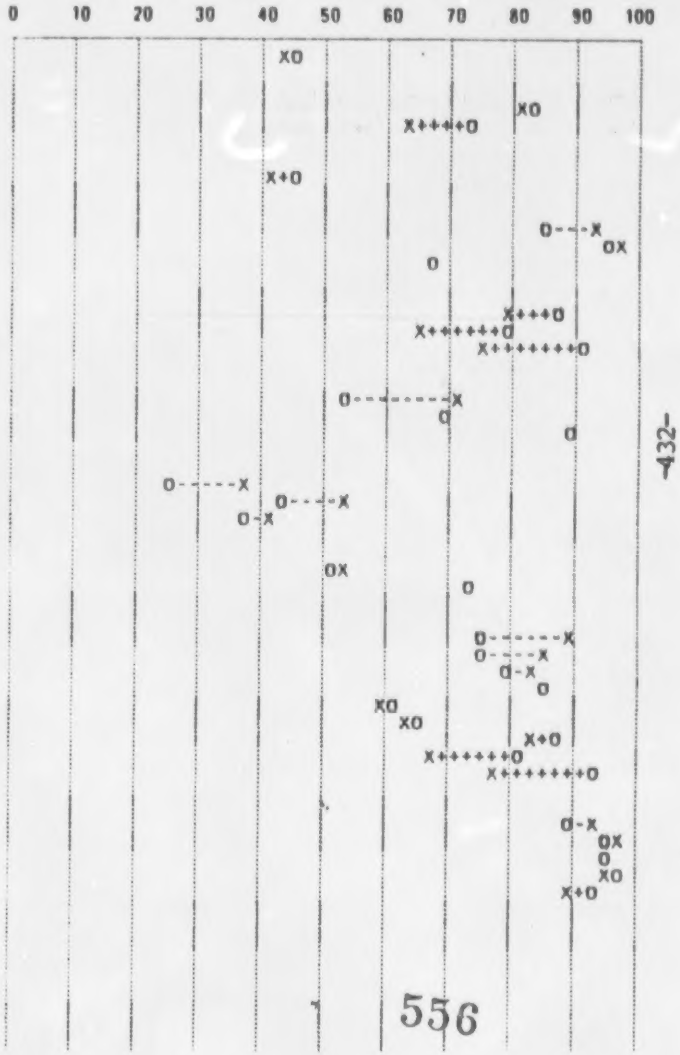
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

PACIFIC LANGUAGE ARTS 311 638 MAY-80 5 1 007-5412

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	WORD FORMS				
01	POSSESSIVE FORMS	616	43	45	+ 2
	PUNCTUATION				
02	PUNCTUATION-USE OF COMMAS	520	82	83	+ 1
03	PUNCTUATION-USE OF THE COLON	570	63	73	+ 10
	SENTENCE PATTERNS				
04	SENTENCE PATTERNS-SUBJECT AND PREDICATE	620	41	45	+ 4
	USAGE				
06	USAGE-PRONOUN CASE	466	93	85	- 8
05	USAGE - SUBJECT VERB AGREEMENT	424	97	96	- 1
07	USAGE - SUBJECT VERB AGREEMENT	560	68	68	+ 0
	SENTENCE STRUCTURE				
10	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	524	80	87	+ 7
09	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	564	66	79	+ 13
08	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	537	76	91	+ 15
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
12	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	550	72	54	- 18
11	BUSINESS LETTER	556	69	69	+ 0
16	BUSINESS LETTER	489	89	89	+ 0
	BUILDING AND CHANGING SENTENCES				
14	BUILD AND CHANGE SENTENCES-INVERTED ORDER	629	38	25	- 13
15	BUILDING AND CHANGING SENT - SUBORDINATION	595	53	44	- 9
13	BUILD AND CHANGE SENT - EMBEDDING (APPOSIT)	621	41	38	- 3
	LEVEL OF GENERALIZATION				
17	LEVEL OF GENERALIZATION	592	54	52	- 2
18	LEVEL OF GENERALIZATION	546	73	73	+ 0
	PARAGRAPH DEVELOPMENT				
22	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	484	90	76	- 14
24	PATTERNS OF PARAGRAPH DEVELOPEMENT	509	85	75	- 10
26	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	512	84	80	- 4
27	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	502	86	85	- 1
21	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	579	60	61	+ 1
20	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	572	63	66	+ 3
25	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	510	84	88	+ 4
23	PATTERNS OF PARAGRAPH DEVELOPEMENT	559	68	81	+ 13
19	PARAGRAPH MAIN IDEA	531	78	93	+ 15
	SPELLING				
29	SPELLING-CONSONANT UNITS	455	94	89	- 5
32	SPELLING-UNCOMMON VOWEL UNIT.	427	97	96	- 1
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	443	95	95	+ 0
31	SPELLING-CONSONANT UNITS	438	96	97	+ 1
28	SPELLING-PREFIXES	485	90	94	+ 4

Curriculum Match Profile - X = Expected; O = Observed

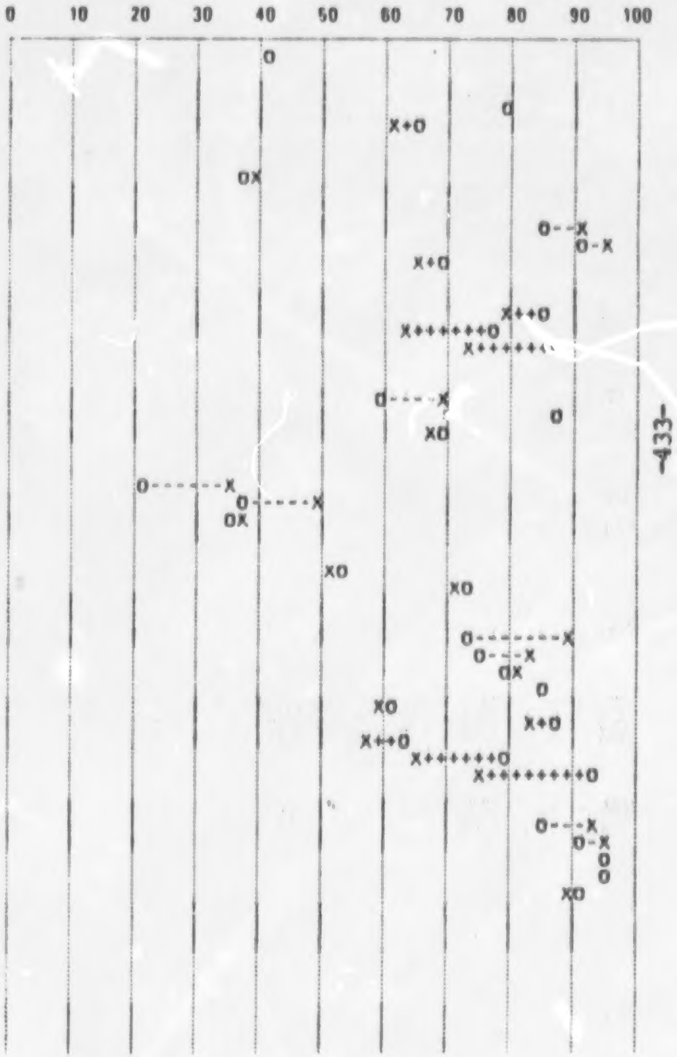


PANAMA LANGUAGE ARTS 311 464 MAY-80 6 1 002-3678

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	WORD FORMS				
01	POSSESSIVE FORMS	616	41	41	+ 0
	PUNCTUATION				
02	PUNCTUATION-USE OF COMMAS	520	80	80	+ 0
03	PUNCTUATION-USE OF THE COLON	570	61	65	+ 4
	SENTENCE PATTERNS				
04	SENTENCE PATTERNS-SUBJECT AND PREDICATE	620	39	37	- 2
	USAGE				
06	USAGE-PRONOUN CASE	466	92	86	- 6
05	USAGE - SUBJECT VERB AGREEMENT	424	96	92	- 4
07	USAGE - SUBJECT VERB AGREEMENT	560	65	70	+ 5
	SENTENCE STRUCTURE				
10	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	524	79	85	+ 6
09	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	564	64	77	+ 13
08	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	537	74	87	+ 13
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
12	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	550	70	60	- 10
16	BUSINESS LETTER	489	88	87	- 1
11	BUSINESS LETTER	556	67	69	+ 2
	BUILDING AND CHANGING SENTENCES				
14	BUILD AND CHANGE SENTENCES-INVERTED ORDER	629	35	21	- 14
15	BUILDING AND CHANGING SENT - SUBORDINATION	595	50	37	- 13
13	BUILD AND CHANGE SENT - EMBEDDING (APPOSIT)	621	38	35	- 3
	LEVEL OF GENERALIZATION				
17	LEVEL OF GENERALIZATION	592	51	53	+ 2
18	LEVEL OF GENERALIZATION	546	71	74	+ 3
	PARAGRAPH DEVELOPMENT				
22	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	484	89	74	- 15
24	PATTERNS OF PARAGRAPH DEVELOPEMENT	509	83	76	- 7
26	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	512	82	79	- 3
27	PARAGRAPH DEVELOPMENT - CLOSING STATEMENT	502	85	86	+ 1
20	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	572	60	62	+ 2
25	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	510	83	88	+ 5
21	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	579	57	63	+ 6
23	PATTERNS OF PARAGRAPH DEVELOPEMENT	559	66	80	+ 14
19	PARAGRAPH MAIN IDEA	531	76	93	+ 17
	SPELLING				
29	SPELLING-CONSONANT UNITS	455	93	85	- 8
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	443	95	91	- 4
32	SPELLING-UNCOMMON VOWEL UNIT	427	96	95	- 1
31	SPELLING-CONSONANT UNITS	438	95	96	+ 1
28	SPELLING-PREFIXES	485	89	92	+ 3

Curriculum Match Profile - X = Expected; O = Observed



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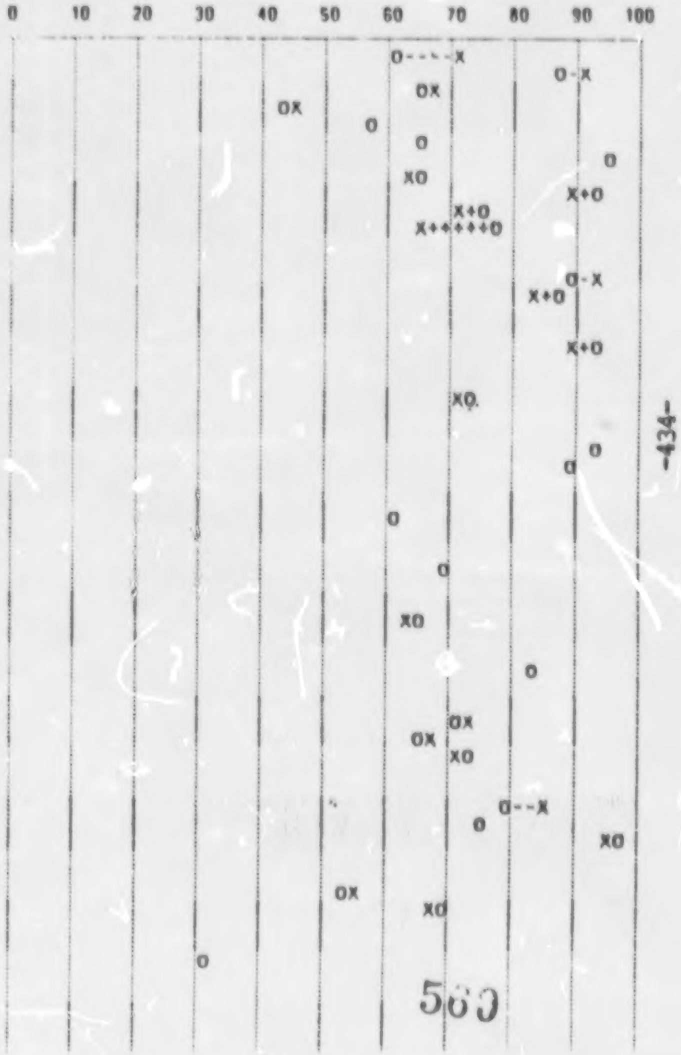
ATLANTIC MATHEMATICS 311 691 MAY-80 1 1 003-3498

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
04	ADD MIXED FRACTIONS WITH UNLIKE DENOMIN	568	71	62	- 9
02	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	479	92	88	- 4
06	DIVIDE MIXED FRACTION BY WHOLE NUMBER	576	68	66	- 2
15	MIXED OPER-NO GROUPING SIGNS-MIXED FORMAT	639	45	43	- 2
05	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	603	58	57	- 1
10	CONVERT FRACTION TO PERCENT	581	66	66	+ 0
03	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	95	95	+ 0
08	CONVERT DECIMALS TO FRACTIONS	588	64	66	+ 2
01	ADD MULTIDIGIT INTGRS WITH REGROUP	495	90	93	+ 3
09	CONVERT PERCENT TO FRACTION	569	71	75	+ 4
07	MULTIPLY MULTI-PLACE DECIMALS	586	65	77	+ 12
	APPLY-ALGEBRA				
12	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	475	93	90	- 3
11	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	529	83	88	+ 5
	COMPUTER KNOWLEDGE				
13	COMPUTER KNOWLEDGE	498	89	93	+ 4
	APPLY-ARITHMETIC PROPERTIES				
14	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	72	74	+ 2
	MEASUREMENT APPLICATIONS				
19	APPLY-MONEY-MULTIPLYING	469	94	93	- 1
16	APPLY-TIME-MIXED OPERATIONS	503	89	90	+ 1
	APPLY-PROBABILITY & STATISTICS				
17	APPLY-PROBABILITY & STATISTICS-AVERAGES	597	61	62	+ 1
	ARITHMETIC APPLICATIONS				
18	APPLY DIVISION-DECIMALS	573	70	70	+ 0
	APPLY-PERCENTS				
20	APPLY-PERCENTS-MONEY SITUATIONS	588	64	65	+ 1
	DOMESTIC SKILLS				
21	DOMESTIC SKILLS-QUANTITIES	529	83	83	+ 0
	APPLY-USE OF SIMPLE FORMULAS				
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	564	73	71	- 2
29	APPLY-USE SIMPLE GEOMETRIC FORMULAS	579	67	66	- 1
22	APPLY-USE SIMPLE GEOMETRIC FORMULAS	567	71	73	+ 2
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
23	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	518	85	80	- 5
24	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	553	76	76	+ 0
25	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	452	95	97	+ 2
	COMPREHEND GEOMETRY				
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	613	55	53	- 2
26	COMPRE IDENTIFYING ANGLES	578	68	69	+ 1
	MEASUREMENT COMPUTATION				
30	SOLID METRIC SQUARE MEASUREMENT	678	31	32	+ 1

Curriculum Match Profile - X = Expected; O = Observed

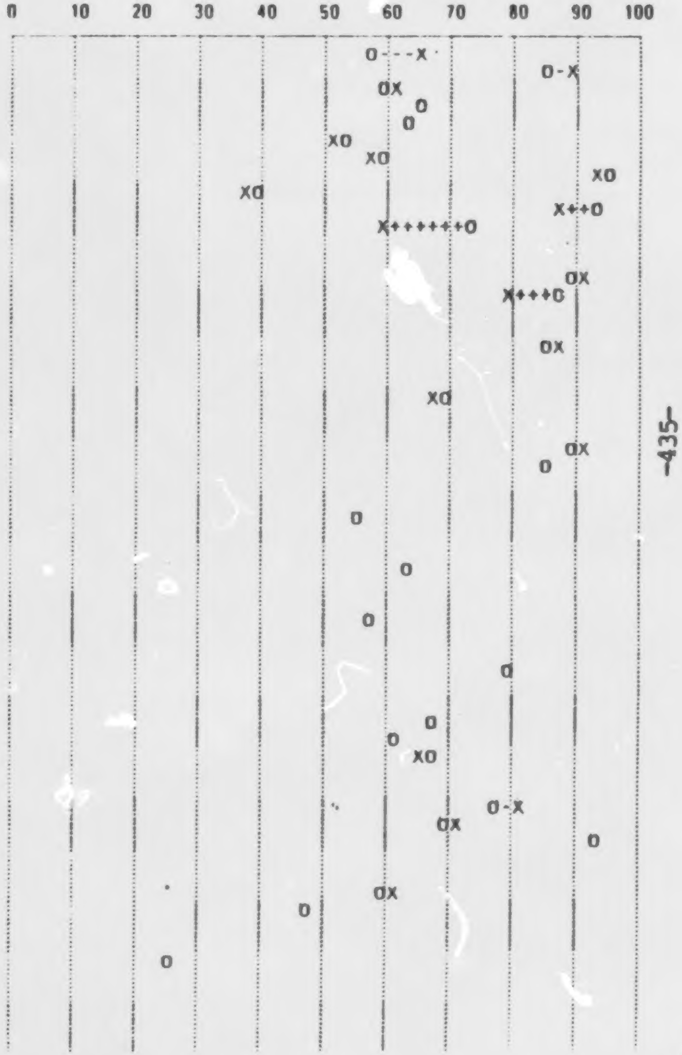


GERMANY NORTH MATHEMATICS 311 1,589 MAY-80 2 1 005-0399

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
04	ADD MIXED FRACTIONS WITH UNLIKE DENOMIN	568	66	58	- 8
02	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	479	90	86	- 4
10	CONVERT FRACTION TO PERCENT	581	61	60	- 1
09	CONVERT PERCENT TO FRACTION	569	66	66	+ 0
06	DIVIDE MIXED FRACTION BY WHOLE NUMBER	576	63	63	+ 0
05	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	603	52	53	+ 1
08	CONVERT DECIMALS TO FRACTIONS	588	58	59	+ 1
03	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	93	95	+ 2
15	MIXED OPER-NO GROUPING SIGNS-MIXED FORMAT	639	38	40	+ 2
01	ADD MULTIDIGIT INTGRS WITH REGROUP	495	87	93	+ 6
07	MULTIPLY MULTI-PLACE DECIMALS	586	59	73	+ 14
	APPLY-ALGEBRA				
12	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	475	91	89	- 2
11	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	529	79	87	+ 8
	COMPUTER KNOWLEDGE				
13	COMPUTER KNOWLEDGE	498	87	86	- 1
	APPLY-ARITHMETIC PROPERTIES				
14	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	67	69	+ 2
	MEASUREMENT APPLICATIONS				
19	APPLY-MONEY-MULTIPLYING	469	92	90	- 2
16	APPLY-TIME-MIXED OPERATIONS	503	86	85	- 1
	APPLY-PROBABILITY & STATISTICS				
17	APPLY-PROBABILITY & STATISTICS-AVERAGES	597	55	55	+ 0
	ARITHMETIC APPLICATIONS				
18	APPLY DIVISION-DECIMALS	573	64	63	- 1
	APPLY-PERCENTS				
20	APPLY-PERCENTS-MONEY SITUATIONS	588	58	57	- 1
	DOMESTIC SKILLS				
21	DOMESTIC SKILLS-QUANTITIES	529	79	79	+ 0
	APPLY-USE OF SIMPLE FORMULAS				
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	564	67	67	+ 0
29	APPLY-USE SIMPLE GEOMETRIC FORMULAS	579	62	62	+ 0
22	APPLY-USE SIMPLE GEOMETRIC FORMULAS	567	66	67	+ 1
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
23	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	518	82	77	- 5
24	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	553	71	70	- 1
25	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	452	94	93	- 1
	COMPREHEND GEOMETRY				
26	COMPRE IDENTIFYING ANGLES	578	62	60	- 2
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	613	48	47	- 1
	MEASUREMENT COMPUTATION				
30	SOLID METRIC SQUARE MEASUREMENT	676	26	26	+ 0

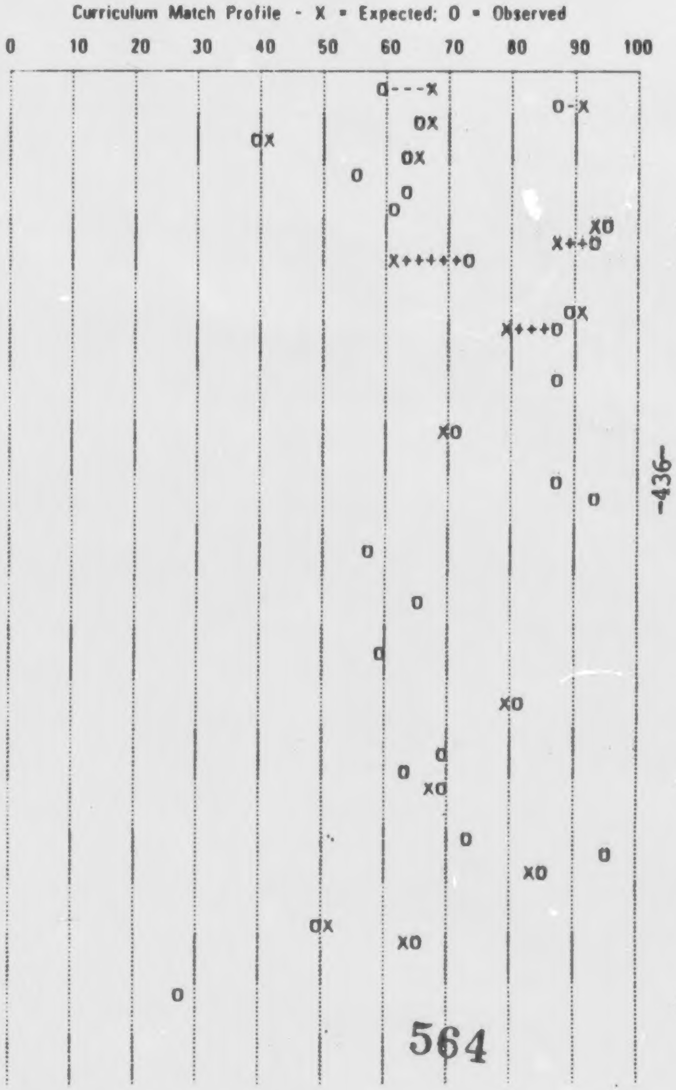
Curriculum Match Profile - X = Expected; 0 = Observed



GERMANY SOUTH MATHEMATICS 311 1,116 MAY-80 3 1 002-6127

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
04	ADD MIXED FRACTIONS WITH UNLIKE DENOMIN	568	68	59	- 9
02	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	479	91	87	- 4
09	CONVERT PERCENT TO FRACTION	569	68	66	- 2
15	MIXED OPER-NO GROUPING SIGNS-MIXED FORMAT	639	41	39	- 2
06	DIVIDE MIXED FRACTION BY WHOLE NUMBER	576	65	64	- 1
05	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	603	55	55	+ 0
10	CONVERT FRACTION TO PERCENT	581	63	63	+ 0
08	CONVERT DECIMALS TO FRACTIONS	588	61	61	+ 0
03	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	94	96	+ 2
01	ADD MULTIDIGIT INTGRS WITH REGROUP	495	88	93	+ 5
07	MULTIPLY MULTI-PLACE DECIMALS	586	61	73	+ 12
	APPLY-ALGEBRA				
12	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	475	92	90	- 2
11	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	529	80	88	+ 8
	COMPUTER KNOWLEDGE				
13	COMPUTER KNOWLEDGE	498	88	88	+ 0
	APPLY-ARITHMETIC PROPERTIES				
14	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	69	71	+ 2
	MEASUREMENT APPLICATIONS				
16	APPLY-TIME-MIXED OPERATIONS	503	87	87	+ 0
19	APPLY-MONEY-MULTIPLYING	469	93	93	+ 0
	APPLY-PROBABILITY & STATISTICS				
17	APPLY-PROBABILITY & STATISTICS-AVERAGES	597	57	57	+ 0
	ARITHMETIC APPLICATIONS				
18	APPLY DIVISION-DECIMALS	573	66	65	- 1
	APPLY-PERCENTS				
20	APPLY-PERCENTS-MONEY SITUATIONS	588	60	60	+ 0
	DOMESTIC SKILLS				
21	DOMESTIC SKILLS-QUANTITIES	529	80	81	+ 1
	APPLY-USE OF SIMPLE FORMULAS				
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	564	70	69	- 1
29	APPLY-USE SIMPLE GEOMETRIC FORMULAS	579	64	64	+ 0
22	APPLY-USE SIMPLE GEOMETRIC FORMULAS	567	68	70	+ 2
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
24	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	553	73	74	+ 1
25	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	452	95	96	+ 1
23	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	518	83	85	+ 2
	COMPREHEND GEOMETRY				
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	613	51	50	- 1
26	COMPRE IDENTIFYING ANGLES	578	64	65	+ 1
	MEASUREMENT COMPUTATION				
30	SOLID METRIC SQUARE MEASUREMENT	676	28	28	+ 0



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564

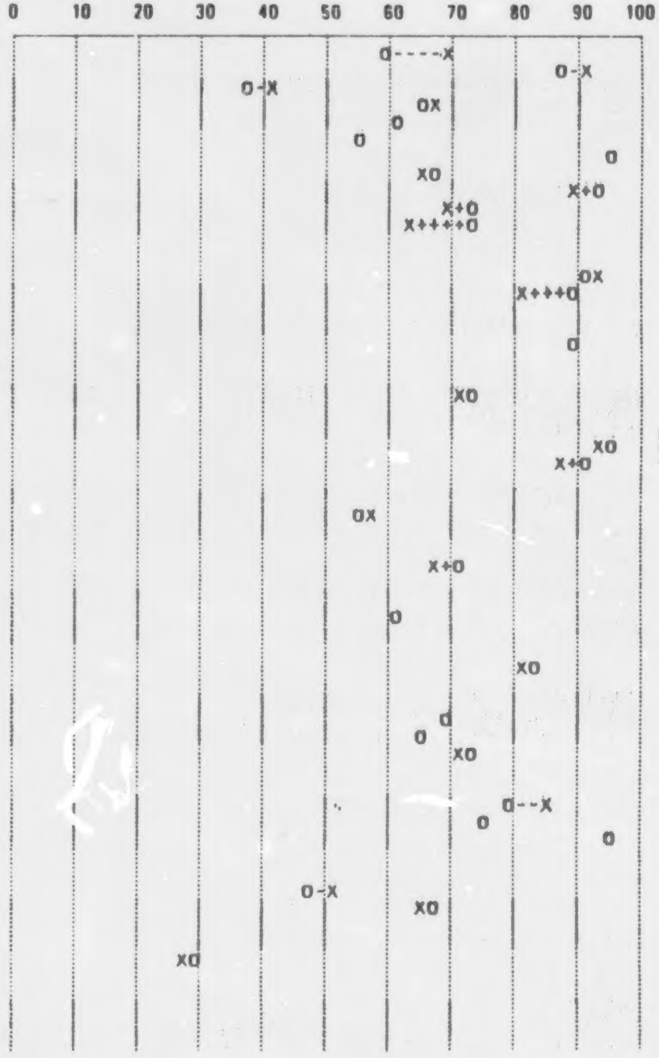
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

MEDITERRANEAN MATHEMATICS 311 434 MAY-80 4 1 006-5816

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
04	ADD MIXED FRACTIONS WITH UNLIKE DENOMIN	568	70	60	- 10
02	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	479	92	88	- 4
15	MIXED OPER-NO GROUPING SIGNS-MIXED FORMAT	639	41	37	- 4
06	DIVIDE MIXED FRACTION BY WHOLE NUMBER	576	67	65	- 2
08	CONVERT DECIMALS TO FRACTIONS	588	62	62	+ 0
05	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	603	56	56	+ 0
03	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	95	96	+ 1
10	CONVERT FRACTION TO PERCENT	581	65	68	+ 3
01	ADD MULTIDIGIT INTGRS WITH REGROUP	495	90	93	+ 3
09	CONVERT PERCENT TO FRACTION	569	69	73	+ 4
07	MULTIPLY MULTI-PLACE DECIMALS	586	63	73	+ 10
	APPLY-ALGEBRA				
12	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	475	93	92	- 1
11	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	529	82	89	+ 7
	COMPUTER KNOWLEDGE				
13	COMPUTER KNOWLEDGE	498	89	90	+ 1
	APPLY-ARITHMETIC PROPERTIES				
14	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	71	74	+ 3
	MEASUREMENT APPLICATIONS				
19	APPLY-MONEY-MULTIPLYING	469	94	95	+ 1
16	APPLY-TIME-MIXED OPERATIONS	503	88	91	+ 3
	APPLY-PROBABILITY & STATISTICS				
17	APPLY-PROBABILITY & STATISTICS-AVERAGES	597	58	56	- 2
	ARITHMETIC APPLICATIONS				
18	APPLY DIVISION-DECIMALS	573	68	71	+ 3
	APPLY-PERCENTS				
20	APPLY-PERCENTS-MONEY SITUATIONS	588	62	61	- 1
	DOMESTIC SKILLS				
21	DOMESTIC SKILLS-QUANTITIES	529	82	84	+ 2
	APPLY-USE OF SIMPLE FORMULAS				
22	APPLY-USE SIMPLE GEOMETRIC FORMULAS	567	70	69	- 1
29	APPLY-USE SIMPLE GEOMETRIC FORMULAS	579	66	66	+ 0
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	564	71	73	+ 2
	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)				
23	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	518	85	80	- 5
24	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	553	75	75	+ 0
25	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	452	95	95	+ 0
	COMPREHEND GEOMETRY				
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	613	52	48	- 4
26	COMPRE IDENTIFYING ANGLES	578	66	68	+ 2
	MEASUREMENT COMPUTATION				
30	SOLID METRIC SQUARE MEASUREMENT	676	28	29	+ 1

Curriculum Match Profile - X = Expected; O = Observed



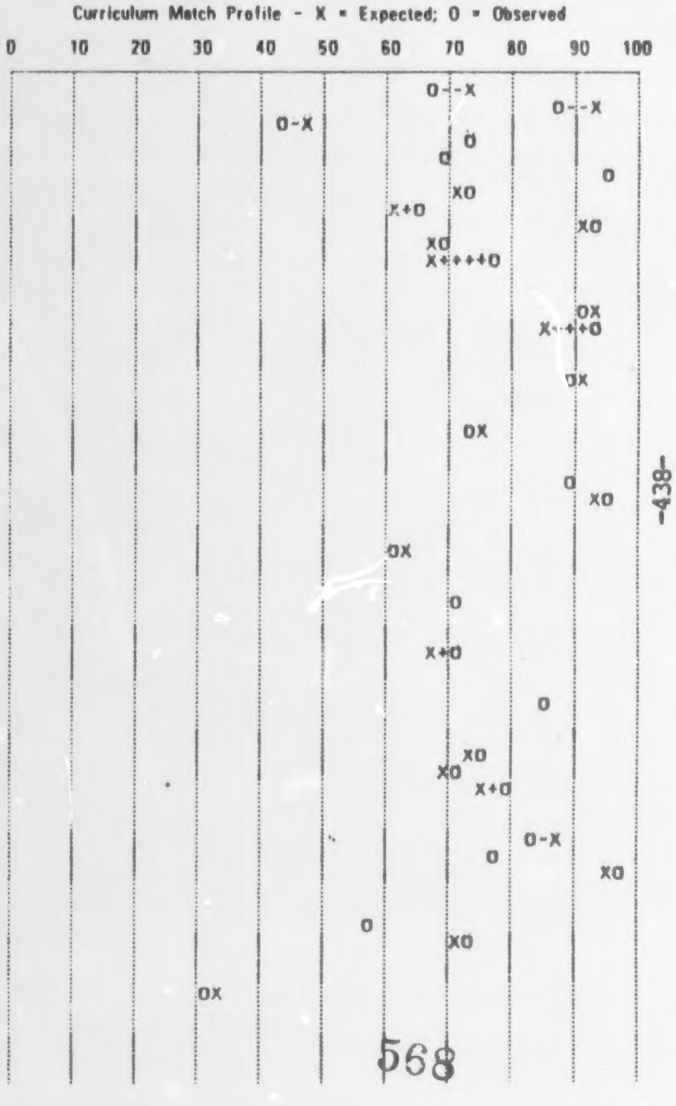
PACIFIC MATHEMATICS 311 640 MAY-80 5 1 007-5471

DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
04	ADD MIXED FRACTIONS WITH UNLIKE DENOMIN	568	74	67	- 7
02	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	479	93	88	- 5
15	MIXED OPER-NO GROUPING SIGNS-MIXED FORMAT	639	48	43	- 5
09	CONVERT PERCENT TO FRACTION	569	74	73	- 1
10	CONVERT FRACTION TO PERCENT	581	69	69	+ 0
03	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	95	96	+ 1
06	DIVIDE MIXED FRACTION BY WHOLE NUMBER	576	71	73	+ 2
05	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	603	62	65	+ 3
01	ADD MULTIDIGIT INTGRS WITH REGROUP	495	91	94	+ 3
08	CONVERT DECIMALS TO FRACTIONS	588	67	70	+ 3
07	MULTIPLY MULTI-PLACE DECIMALS	586	68	77	+ 9
	APPLY-ALGEBRA				
12	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	475	94	92	- 2
11	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	529	85	94	+ 9
	COMPUTER KNOWLEDGE				
13	COMPUTER KNOWLEDGE	498	91	89	- 2
	APPLY-ARITHMETIC PROPERTIES				
14	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	75	74	- 1
	MEASUREMENT APPLICATIONS				
16	APPLY-TIME-MIXED OPERATIONS	503	90	89	- 1
19	APPLY-MONEY-MULTIPLYING	469	94	95	+ 1
	APPLY-PROBABILITY & STATISTICS				
17	APPLY-PROBABILITY & STATISTICS-AVERAGES	597	64	61	- 3
	ARITHMETIC APPLICATIONS				
18	APPLY DIVISION-DECIMALS	573	72	72	+ 0
	APPLY-PERCENTS				
20	APPLY-PERCENTS-MONEY SITUATIONS	588	67	71	+ 4
	DOMESTIC SKILLS				
21	DOMESTIC SKILLS-QUANTITIES	529	85	85	+ 0
	APPLY-USE OF SIMPLE FORMULAS				
22	APPLY-USE SIMPLE GEOMETRIC FORMULAS	567	74	75	+ 1
29	APPLY-USE SIMPLE GEOMETRIC FORMULAS	579	70	72	+ 2
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	564	75	79	+ 4
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
23	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	518	87	83	- 4
24	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	553	78	78	+ 0
25	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	452	98	97	+ 1
	COMPREHEND GEOMETRY				
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	613	58	58	+ 0
26	COMPRE IDENTIFYING ANGLES	578	71	74	+ 3
	MEASUREMENT COMPUTATION				
~~30~~	SOLID METRIC SQUARE MEASUREMENT	676	34	32	- 2

567

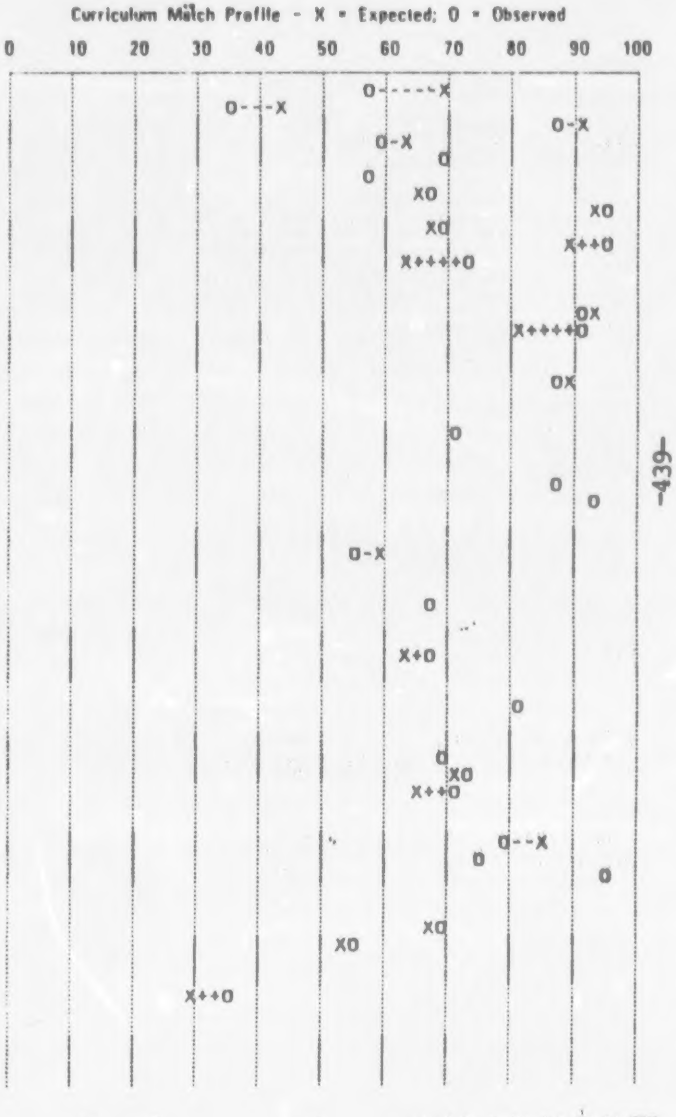


568

PANAMA MATHEMATICS 311 464 MAY-80 6 1 002-3677

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 11

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
04	ADD MIXED FRACTIONS WITH UNLIKE DENOMIN	568	70	57	- 13
15	MIXED OPER-NO GROUPING SIGNS-MIXED FORMAT	639	43	35	- 8
02	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	479	92	88	- 4
08	CONVERT DECIMALS TO FRACTIONS	588	63	60	- 3
09	CONVERT PERCENT TO FRACTION	569	70	69	- 1
05	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	603	57	58	+ 1
10	CONVERT FRACTION TO PERCENT	581	65	67	+ 2
03	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	94	96	+ 2
06	DIVIDE MIXED FRACTION BY WHOLE NUMBER	578	67	70	+ 3
01	ADD MULTIDIGIT INTGRS WITH REGROUP	495	90	95	+ 5
07	MULTIPLY MULTI-PLACE DECIMALS	586	64	74	+ 10
	APPLY-ALGEBRA				
12	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	475	93	91	- 2
11	APPLY-ALGEBRA-SOLVE-1-STEP EQUATIONS	529	82	91	+ 9
	COMPUTER KNOWLEDGE				
13	COMPUTER KNOWLEDGE	498	89	87	- 2
	APPLY-ARITHMETIC PROPERTIES				
14	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	71	71	+ 0
	MEASUREMENT APPLICATIONS				
16	APPLY-TIME-MIXED OPERATIONS	503	88	87	- 1
19	APPLY-MONEY-MULTIPLYING	469	93	94	+ 1
	APPLY-PROBABILITY & STATISTICS				
17	APPLY-PROBABILITY & STATISTICS-AVERAGES	597	59	56	- 3
	ARITHMETIC APPLICATIONS				
18	APPLY DIVISION-DECIMALS	573	68	67	- 1
	APPLY-PERCENTS				
20	APPLY-PERCENTS-MONEY SITUATIONS	588	63	68	+ 5
	DOMESTIC SKILLS				
21	DOMESTIC SKILLS-QUANTITIES	529	82	81	- 1
	APPLY-USE OF SIMPLE FORMULAS				
22	APPLY-USE SIMPLE GEOMETRIC FORMULAS	567	70	69	- 1
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	564	72	74	+ 2
29	APPLY-USE SIMPLE GEOMETRIC FORMULAS	579	66	71	+ 5
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
23	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	518	85	79	- 6
24	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	553	75	76	+ 1
25	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	452	95	96	+ 1
	COMPREHEND GEOMETRY				
26	COMPRE IDENTIFYING ANGLES	578	67	69	+ 2
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	613	53	55	+ 2
	MEASUREMENT COMPUTATION				
30	SOLID METRIC SQUARE MEASUREMENT	676	30	35	+ 5



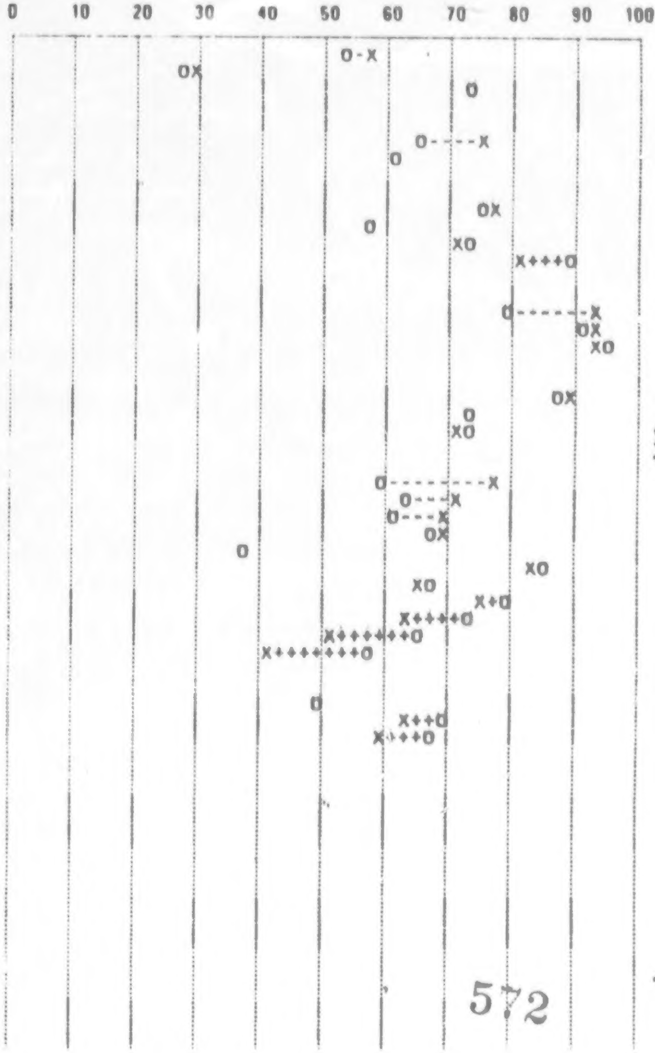
ATLANTIC READING 309 929 MAY-80 1 1 003-3466

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
02	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	603	58	54	- 4
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	665	30	27	- 3
03	SUFFIXES	565	74	73	- 1
	WORD MEANING				
04	WORD MEANING-ANTONYMS	557	76	66	- 10
05	WORD MEANING-CONTEXTUAL MEANING	596	61	62	+ 1
	DICTIONARY				
07	STUDY SKILLS-MEANING APPROPRIATE TO CONTENT	554	78	75	- 3
08	PRONUNCIATION KEY	605	57	57	+ 0
09	GUIDE WORDS	572	71	74	+ 3
06	PRONUNCIATION KEY	542	81	90	+ 9
11	STUDY SKILLS - USE OF REFERENCE MATERIALS	491	93	80	- 13
10	STUDY SKILLS - INDEX USE	489	93	92	- 1
12	STUDY SKILLS - USE OF REFERENCE MATERIALS	488	93	96	+ 3
13	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	90	88	- 2
16	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	564	74	74	+ 0
15	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	570	72	73	+ 1
	INTERPRETIVE COMPREHENSION				
23	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	78	59	- 19
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	571	71	63	- 8
25	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	69	62	- 7
22	INTERPRETIVE COMP.-IDENTIFY MOOD/TONE	574	70	68	- 2
27	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	647	38	37	- 1
20	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	84	86	+ 2
29	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	66	68	+ 2
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	562	75	79	+ 4
28	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	592	63	73	+ 10
18	INTER COMP - CAUSE AND EFFECT	615	52	65	+ 13
17	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	640	41	58	+ 17
	EVALUATIVE COMPREHENSION				
24	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	621	50	49	- 1
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	64	70	+ 6
19	EVAL COMP - STYLES TECHNIQUES AND FORMS	599	60	68	+ 8

Curriculum Match Profile - X = Expected; O = Observed



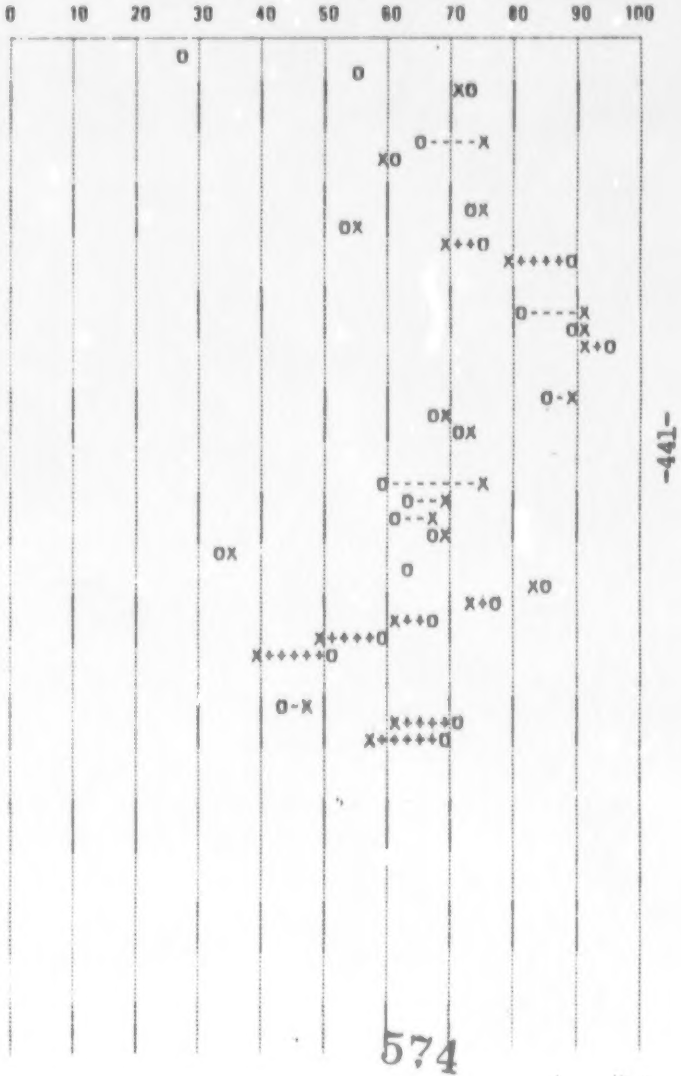
GERMANY NORTH READING 309 2,240 MAY-80 2 1 001-8852

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	665	28	27	- 1
02	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	603	56	56	+ 0
03	SUFFIXES	565	72	73	+ 1
	WORD MEANING				
04	WORD MEANING-ANTONYMS	557	75	65	- 10
05	WORD MEANING-CONTEXTUAL MEANING	596	59	61	+ 2
	DICTIONARY				
07	STUDY SKILLS-MEANING APPROPRIATE TO CONTENT	554	76	73	- 3
08	PRONUNCIATION KEY	605	55	53	- 2
09	GUIDE WORDS	572	70	76	+ 6
06	PRONUNCIATION KEY	542	80	89	+ 9
11	STUDY SKILLS - USE OF REFFRENCE MATERIALS	491	92	81	- 11
10	STUDY SKILLS - INDEX USE	489	92	90	- 2
12	STUDY SKILLS - USE OF REFERENCE MATERIALS	488	92	96	+ 4
13	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	89	86	- 3
15	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	570	70	68	- 2
16	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	564	73	72	- 1
	INTERPRETIVE COMPREHENSION				
23	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	76	60	- 16
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	571	70	63	- 7
25	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	67	62	- 5
22	INTERPRETIVE COMP.-IDENTIFY MOOD/TONE	574	69	67	- 2
27	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	647	36	34	- 2
29	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	64	64	+ 0
20	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	83	86	+ 3
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	562	73	78	+ 5
28	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	592	61	67	+ 6
18	INTER COMP - CAUSE AND EFFECT	615	50	60	+ 10
17	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	640	39	51	+ 12
	EVALUATIVE COMPREHENSION				
24	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	621	48	43	- 5
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	62	71	+ 9
19	EVAL COMP - STYLES TECHNIQUES AND FORMS	599	58	69	+ 11

Curriculum Match Profile - X = Expected; O = Observed



574

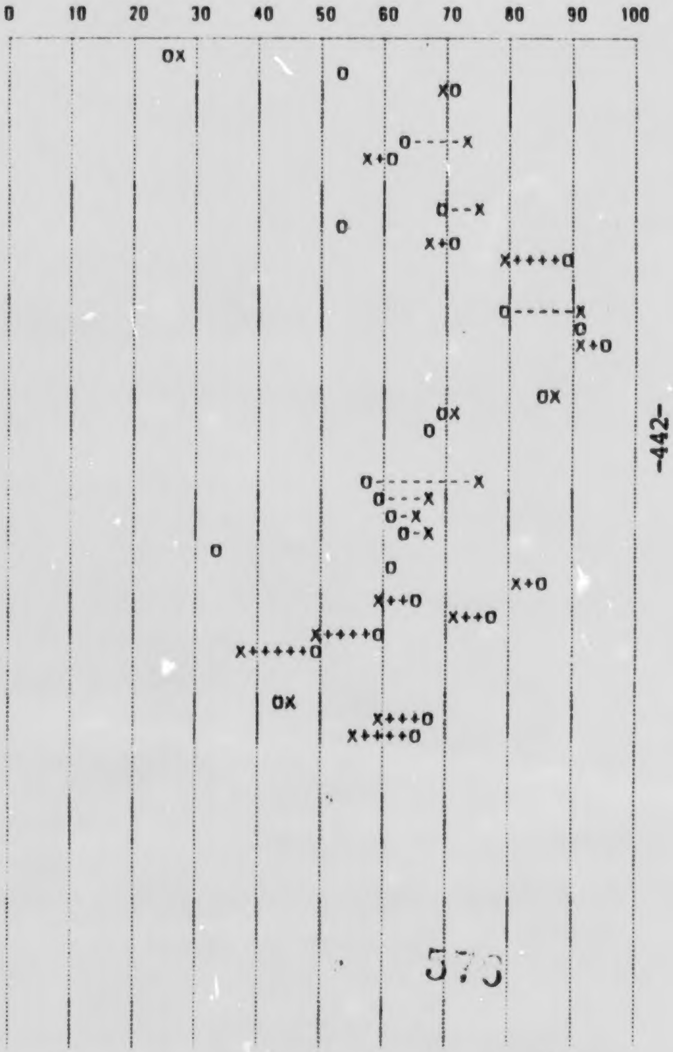
GERMANY SOUTH READING 309 1,661 MAY-80 3 1 004-9001

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	665	27	26	- 1
02	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	603	54	54	+ 0
03	SUFFIXES	565	70	72	+ 2
	WORD MEANING				
04	WORD MEANING-ANTONYMS	557	74	63	- 11
05	WORD MEANING-CONTEXTUAL MEANING	596	57	61	+ 4
	DICTIONARY				
07	STUDY SKILLS-MEANING APPROPRIATE TO CONTENT	554	75	70	- 5
08	PRONUNCIATION KEY	605	53	53	+ 0
09	GUIDE WORDS	572	68	72	+ 4
06	PRONUNCIATION KEY	542	79	89	+ 10
11	STUDY SKILLS - USE OF REFERENCE MATERIALS	491	91	79	- 12
10	STUDY SKILLS - INDEX USE	489	92	91	- 1
12	STUDY SKILLS - USE OF REFERENCE MATERIALS	488	92	95	+ 3
13	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	88	86	- 2
16	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	564	71	69	- 2
15	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	570	68	68	+ 0
	INTERPRETIVE COMPREHENSION				
23	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	75	58	- 17
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	571	68	60	- 8
25	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	65	62	- 3
22	INTERPRETIVE COMP.-IDENTIFY MOOD/TONE	574	67	64	- 3
27	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	647	34	34	+ 0
29	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	62	62	+ 0
20	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	82	86	+ 4
28	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	592	59	65	+ 6
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	562	72	78	+ 6
18	INTER COMP - CAUSE AND EFFECT	615	49	59	+ 10
17	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	640	37	50	+ 13
	EVALUATIVE COMPREHENSION				
24	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	621	46	43	- 3
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	60	67	+ 7
19	EVAL COMP - STYLES TECHNIQUES AND FORMS	599	56	65	+ 9

Curriculum Match Profile - X = Expected; O = Observed

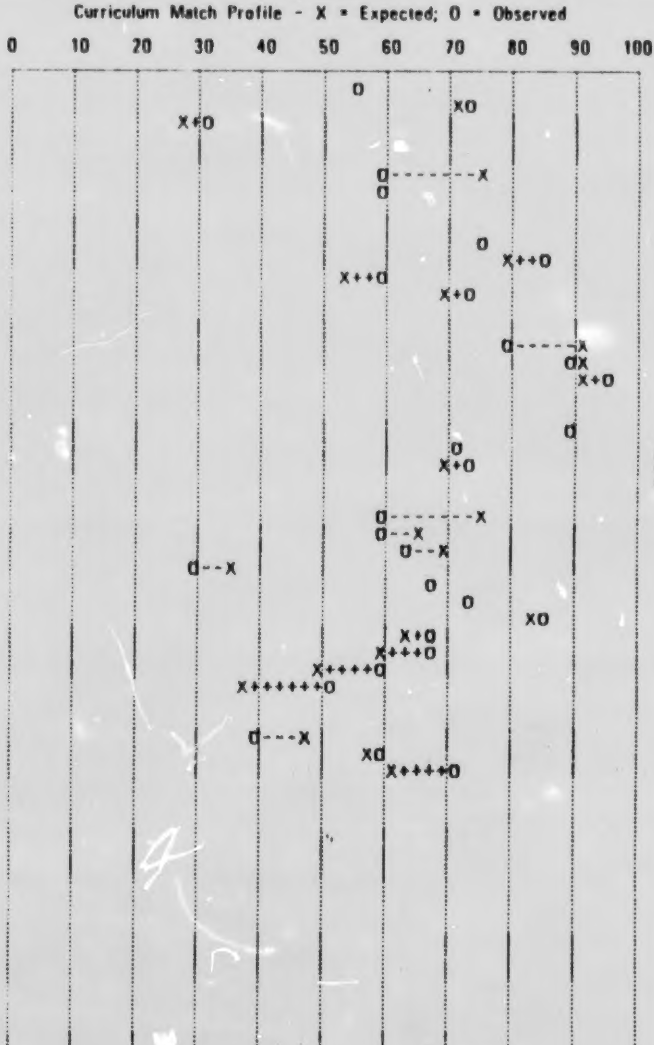


DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

MEDITERRANEAN READING 309 571 MAY-80 4 1 006-5785

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
02	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	603	55	56	+ 1
03	SUFFIXES	565	72	73	+ 1
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	665	28	32	+ 4
	WORD MEANING				
04	WORD MEANING-ANTONYMS	557	75	60	- 15
05	WORD MEANING-CONTEXTUAL MEANING	596	59	60	+ 1
	DICTIONARY				
07	STUDY SKILLS-MEANING APPROPRIATE TO CONTENT	554	76	75	- 1
06	PRONUNCIATION KEY	542	80	85	+ 5
08	PRONUNCIATION KEY	605	54	59	+ 5
09	GUIDE WORDS	572	69	74	+ 5
11	STUDY SKILLS - USE OF REFERENCE MATERIALS	491	92	79	- 13
10	STUDY SKILLS - INDEX USE	489	92	90	- 2
12	STUDY SKILLS - USE OF REFERENCE MATERIALS	488	92	96	+ 4
13	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	89	89	+ 0
16	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	564	72	72	+ 0
15	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	570	70	74	+ 4
	INTERPRETIVE COMPREHENSION				
23	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	76	60	- 16
25	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	66	59	- 7
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	571	69	63	- 6
27	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	647	35	29	- 6
22	INTERPRETIVE COMP.-IDENTIFY MOOD/TONE	574	68	68	+ 0
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	562	73	74	+ 1
20	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	83	86	+ 3
29	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	63	67	+ 4
28	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	592	60	67	+ 7
18	INTER COMP - CAUSE AND EFFECT	615	50	59	+ 9
17	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	640	38	52	+ 14
	EVALUATIVE COMPREHENSION				
24	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	621	47	40	- 7
19	EVAL COMP - STYLES TECHNIQUES AND FORMS	599	57	60	+ 3
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	61	71	+ 10


Curriculum Match Profile - X = Expected; 0 = Observed

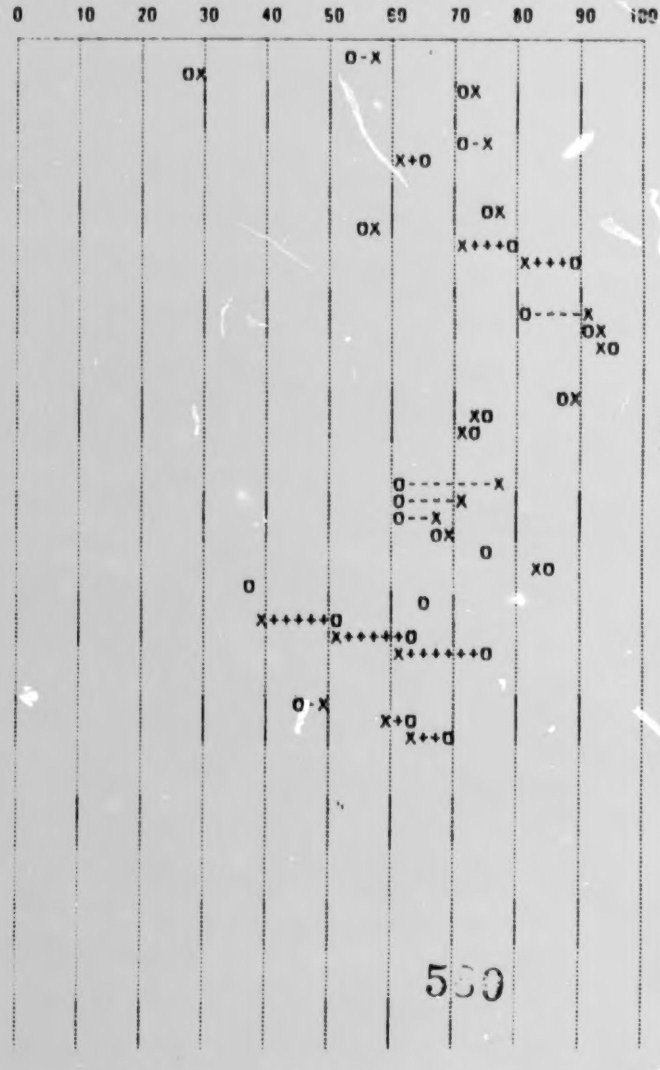
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

PACIFIC READING 309 977 MAY-80 5 1 006-8224

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
02	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	603	57	53	- 4
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	665	30	27	- 3
03	SUFFIXES	565	73	72	- 1
	WORD MEANING				
04	WORD MEANING-ANTONYMS	557	76	71	- 5
05	WORD MEANING-CONTEXTUAL MEANING	596	61	66	+ 5
	DICTIONARY				
07	STUDY SKILLS-MEANING APPROPRIATE TO CONTENT	554	78	75	- 3
08	PRONUNCIATION KEY	605	57	55	- 2
09	GUIDE WORDS	572	71	79	+ 8
06	PRONUNCIATION KEY	542	81	90	+ 9
11	STUDY SKILLS - USE OF REFERENCE MATERIALS	491	92	81	- 11
10	STUDY SKILLS - INDEX USE	489	93	91	- 2
12	STUDY SKILLS - USE OF REFERENCE MATERIALS	488	93	96	+ 3
13	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	90	88	- 2
16	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	564	74	75	+ 1
15	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	570	71	74	+ 3
	INTERPRETIVE COMPREHENSION				
23	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	78	62	- 16
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	571	71	61	- 10
25	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	68	62	- 6
22	INTERPRETIVE COMP.-IDENTIFY MOOD/TONE	574	70	68	- 2
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	562	75	76	+ 1
20	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	84	85	+ 1
27	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	647	37	38	+ 1
29	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	65	66	+ 1
17	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	640	40	51	+ 11
18	INTER COMP - CAUSE AND EFFECT	615	52	64	+ 12
28	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	592	62	75	+ 13
	EVALUATIVE COMPREHENSION				
24	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	621	49	45	- 4
19	EVAL COMP - STYLES TECHNIQUES AND FORMS	599	59	64	+ 5
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	63	69	+ 6

Curriculum Match Profile - X = Expected; O = Observed



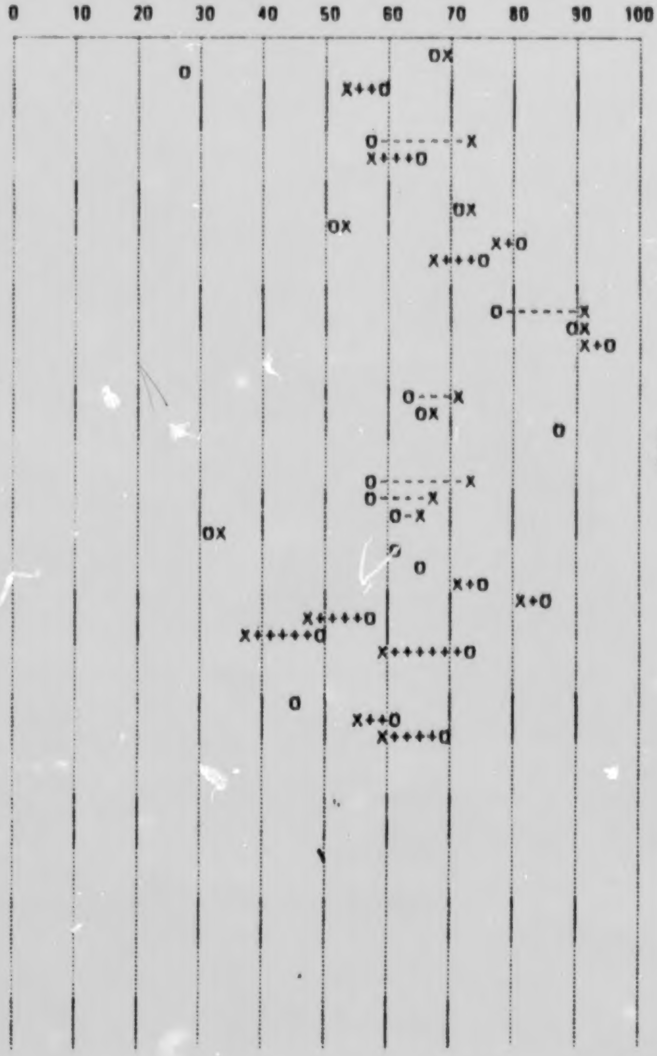
560

PANAMA READING 309 582 MAY-80 6 1 005-2096

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
03	SUFFIXES	565	70	67	- 3
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	665	27	28	+ 1
02	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	603	54	59	+ 5
	WORD MEANING				
04	WORD MEANING-ANTONYMS	557	73	57	- 16
05	WORD MEANING-CONTEXTUAL MEANING	596	57	66	+ 9
	DICTIONARY				
07	STUDY SKILLS-MEANING APPROPRIATE TO CONTENT	554	74	72	- 2
08	PRONUNCIATION KEY	605	53	51	- 2
06	PRONUNCIATION KEY	542	78	82	+ 4
09	GUIDE WORDS	572	67	75	+ 8
11	STUDY SKILLS - USE OF REFERENCE MATERIALS	491	91	77	- 14
10	STUDY SKILLS - INDEX USE	489	91	90	- 1
12	STUDY SKILLS - USE OF REFERENCE MATERIALS	488	91	95	+ 4
16	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	564	71	63	- 8
15	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	570	68	66	- 2
13	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	88	88	+ 0
	INTERPRETIVE COMPREHENSION				
23	INTERPRETIVE COMPREHENSION-POINT OF VIEW	554	74	57	- 17
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	571	68	57	- 11
25	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	578	65	61	- 4
27	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	647	34	31	- 3
29	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	62	61	- 1
22	INTERPRETIVE COMP.-IDENTIFY MOOD/TONE	574	66	66	+ 0
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	562	71	75	+ 4
20	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	81	85	+ 4
18	INTER COMP - CAUSE AND EFFECT	615	48	58	+ 10
17	INTERPRETIVE COMP.-TRAITS/MOTIVES/EMOTIONS	640	37	50	+ 13
28	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	592	59	73	+ 14
	EVALUATIVE COMPREHENSION				
24	EVALUATIVE COMP.-IDENTIFY PROPAGANDA/BIAS	621	46	46	+ 0
19	EVAL COMP - STYLES TECHNIQUES AND FORMS	599	56	61	+ 5
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	59	70	+ 11

Curriculum Match Profile - X = Expected; O = Observed

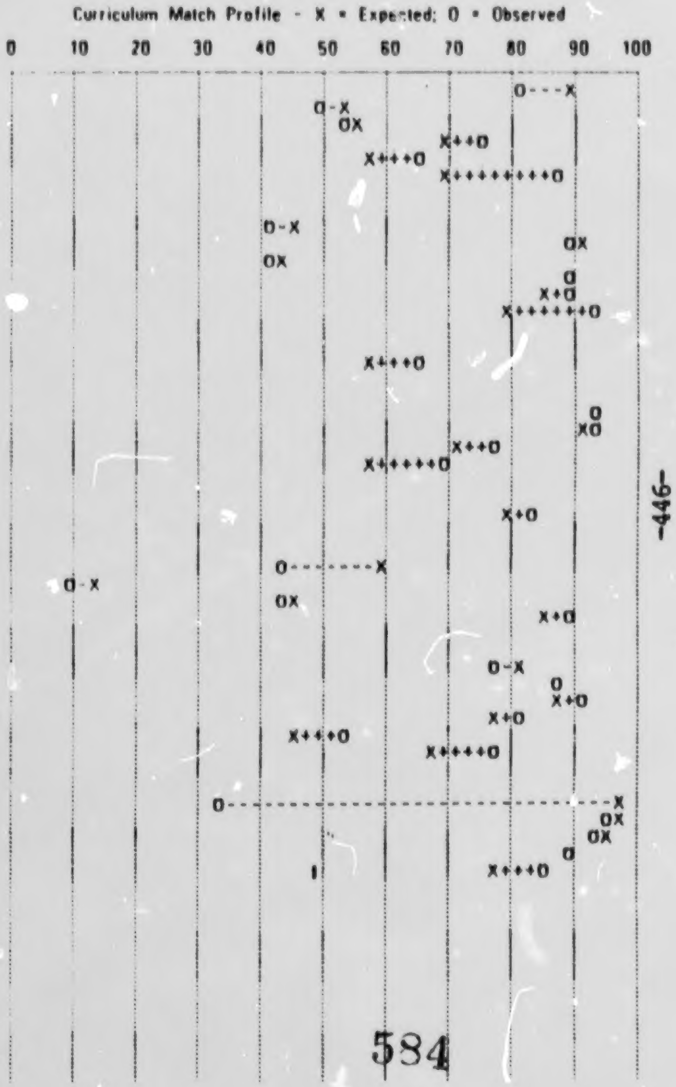


DEPARTMENT OF DEFENSE
DEPENDENTS SCHOOLS

ATLANTIC LANGUAGE ARTS 309 924 MAY-80 1 1 003-3470

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PUNCTUATION				
02	PUNCTUATION-USE OF COMMAS	466	90	82	- 8
05	PUNCTUATION-USE OF APOSTROPHES	575	54	49	- 5
06	PUNCTUATION-USE OF THE COLON	570	56	53	- 3
03	PUNCTUATION-USE OF COMMAS	539	69	75	+ 6
04	PUNCTUATION-USE OF COMMAS	570	57	65	+ 8
01	PUNCTUATION-USE OF COMMAS	538	70	87	+ 17
	USAGE				
11	USAGE-PRONOUN CASE	598	45	41	- 4
10	USAGE - DOUBLE NEGATIVES	457	92	90	- 2
12	USAGE COMPARATIVES AND SUPERLATIVES	600	43	42	- 1
07	USAGE - VERB TENSE	466	90	90	+ 0
08	USAGE - SUBJECT VERB AGREEMENT	488	86	89	+ 3
09	USAGE SUBJECT VERB AGREEMENT	513	79	94	+ 15
	SENTENCE PATTERNS				
13	SENTENCE PATTERNS-SUBJECT AND PREDICATE	567	58	65	+ 7
	SENTENCE STRUCTURE				
14	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	450	93	94	+ 1
15	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	91	94	+ 3
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	534	71	77	+ 6
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	568	57	69	+ 12
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
18	BUSINESS LETTER	512	79	84	+ 5
	BUILDING AND CHANGING SENTENCES				
20	BUILDING AND CHANGING SENT - COORDINATION	564	59	44	- 15
21	BUILDING AND CHANGING SENT - COORDINATION	683	14	10	- 4
22	BUILDING AND CHANGING SENT - SUBORDINATION	593	46	44	- 2
19	BUILDING AND CHANGING SENT - COORDINATION	487	86	89	+ 3
	PARAGRAPH DEVELOPMENT				
27	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	504	82	77	- 5
23	PARAGRAPH MAIN IDEA	479	88	88	+ 0
24	PARAGRAPH MAIN IDEA	475	88	91	+ 3
28	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	515	78	81	+ 3
26	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	595	45	54	+ 9
25	PARAGRAPH MAIN IDEA	545	67	77	+ 10
	SPELLING				
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	400	97	34	- 63
29	SPELLING-END LONG VOWEL	379	98	[illegible]	- 2
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	424	95	93	- 2
32	SPELLING-LONG MID-SYL VOWEL-MARKER E PTTRN	469	90	89	- 1
33	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	520	77	85	+ 8

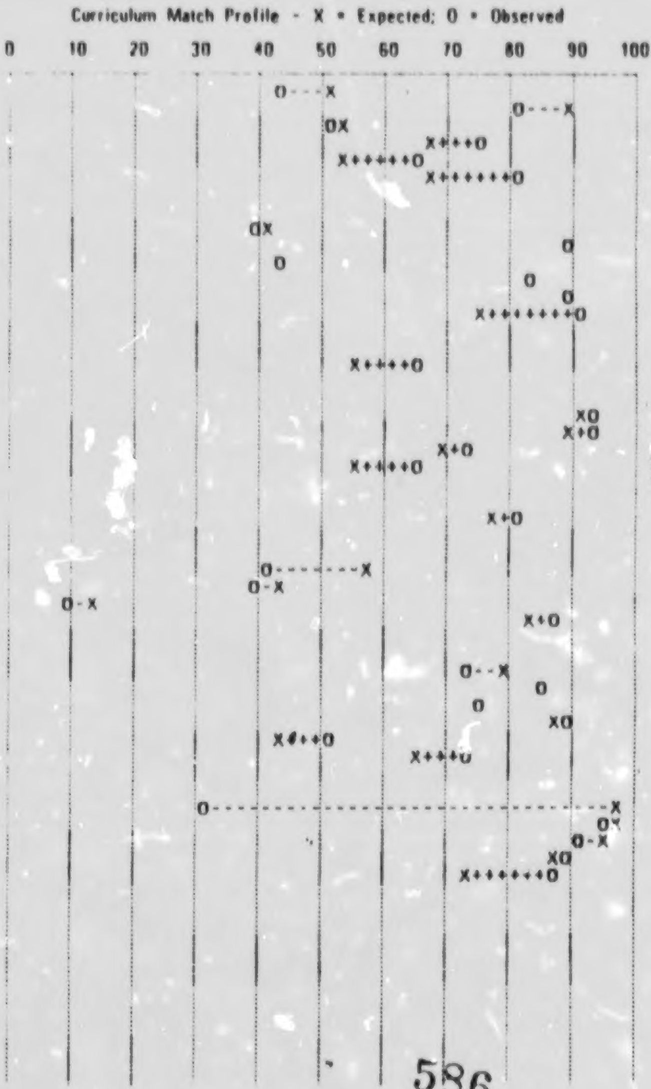


583

GERMANY NORTH LANGUAGE ARTS 309 2.223 MAY-80 2 1 001-8859

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PUNCTUATION				
05	PUNCTUATION-USE OF APOSTROPHES	575	52	43	- 9
02	PUNCTUATION-USE OF COMMAS	466	89	82	- 7
06	PUNCTUATION-USE OF THE COLON	570	54	51	- 3
03	PUNCTUATION-USE OF COMMAS	539	67	75	+ 8
04	PUNCTUATION-USE OF COMMAS	570	54	65	+ 11
01	PUNCTUATION-USE OF COMMAS	538	67	82	+ 15
	USAGE				
12	USAGE-COMPARATIVES AND SUPERLATIVES	600	41	40	- 1
10	USAGE - DOUBLE NEGATIVES	457	90	90	+ 0
11	USAGE-PRONOUN CASE	596	43	43	+ 0
08	USAGE - SUBJECT VERB AGREEMENT	488	84	84	+ 0
07	USAGE - VERB TENSE	466	89	90	+ 1
09	USAGE - SUBJECT VERB AGREEMENT	513	76	92	+ 16
	SENTENCE PATTERNS				
13	SENTENCE PATTERNS-SUBJECT AND PREDICATE	567	55	65	+ 10
	SENTENCE STRUCTURE				
14	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	450	91	93	+ 2
15	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	89	93	+ 4
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	534	69	73	+ 4
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	568	55	66	+ 11
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
18	BUSINESS LETTER	512	77	82	+ 5
	BUILDING AND CHANGING SENTENCES				
20	BUILDING AND CHANGING SENT - COORDINATION	564	57	42	- 15
22	BUILDING AND CHANGING SENT - SUBORDINATION	593	44	40	- 4
21	BUILDING AND CHANGING SENT - COORDINATION	683	13	10	- 3
19	BUILDING AND CHANGING SENT - COORDINATION	487	84	88	+ 4
	PARAGRAPH DEVELOPMENT				
27	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	504	79	74	- 5
23	PARAGRAPH MAIN IDEA	479	86	85	- 1
28	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	515	76	75	- 1
24	PARAGRAPH MAIN IDEA	475	87	89	+ 2
26	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	595	43	51	+ 8
25	PARAGRAPH MAIN IDEA	545	65	74	+ 9
	SPELLING				
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	400	97	32	- 65
29	SPELLING-END LONG VOWEL	379	98	95	- 3
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	424	95	92	- 3
32	SPELLING-LONG MID-SYL VOWEL-MARKER E PTTRN	469	88	89	+ 1
33	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	520	74	87	+ 13

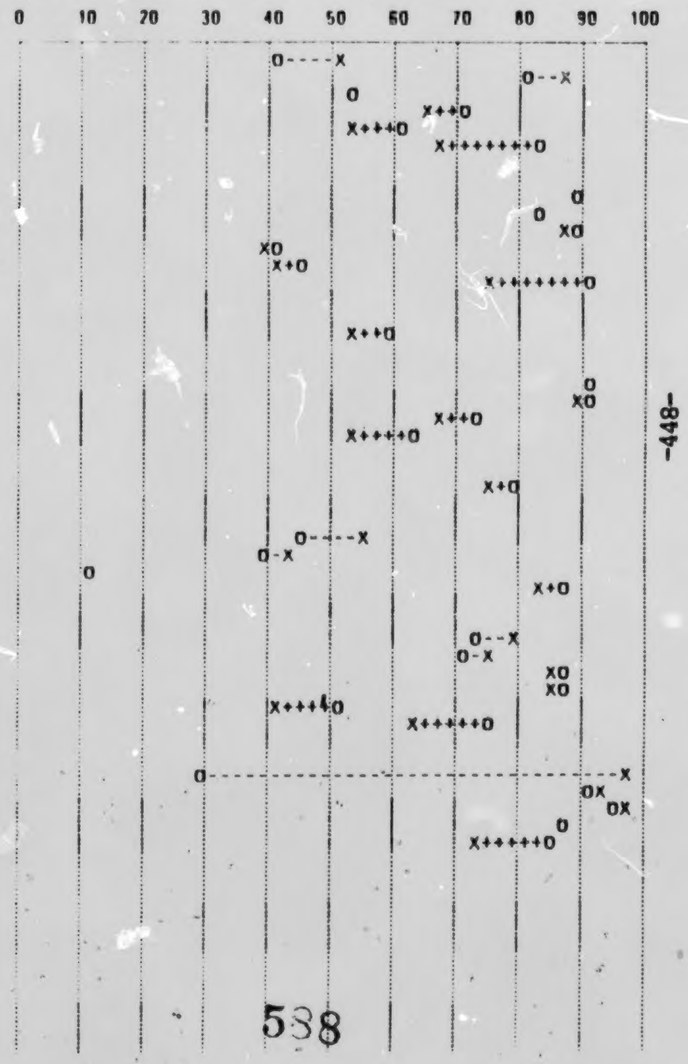


GERMANY SOUTH LANGUAGE ARTS 309 1,647 MAY-80 3 1 004-8989 , .

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PUNCTUATION				
05	PUNCTUATION-USE OF APOSTROPHES	575	51	41	- 10
02	PUNCTUATION-USE OF COMMAS	466	88	82	- 6
06	PUNCTUATION-USE OF THE COLON	570	53	53	+ 0
03	PUNCTUATION-USE OF COMMAS	539	66	72	+ 6
04	PUNCTUATION-USE OF COMMAS	570	53	62	+ 9
01	PUNCTUATION-USE OF COMMAS	538	67	83	+ 16
	USAGE				
10	USAGE - DOUBLE NEGATIVES	457	90	89	- 1
08	USAGE - SUBJECT VERB AGREEMENT	488	83	84	+ 1
07	USAGE - VERB TENSE	466	88	89	+ 1
12	USAGE-COMPARATIVES AND SUPERLATIVES	600	40	41	+ 1
11	USAGE-PRONOUN CASE	596	42	46	+ 4
09	USAGE - SUBJECT VERB AGREEMENT	513	76	92	+ [illegible]
	SENTENCE PATTERNS				
13	SENTENCE PATTERNS-SUBJECT AND PREDICATE	567	54	60	+ 6
	SENTENCE STRUCTURE				
14	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	450	91	92	+ 1
15	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	89	92	+ 3
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	534	68	73	+ 5
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	568	54	63	+ 9
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
18	BUSINESS LETTER	512	76	80	+ 4
	BUILDING AND CHANGING SENTENCES				
20	BUILDING AND CHANGING SENT - COORDINATION	564	56	45	- 11
22	BUILDING AND CHANGING SENT - SUBORDINATION	593	43	39	- 4
21	BUILDING AND CHANGING SENT - COORDINATION	683	12	12	+ 0
19	BUILDING AND CHANGING SENT - COORDINATION	487	84	87	+ 3
	PARAGRAPH DEVELOPMENT				
27	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	504	79	74	- 5
28	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	515	75	72	- 3
23	PARAGRAPH MAIN IDEA	479	85	87	+ 2
24	PARAGRAPH MAIN IDEA	475	86	88	+ 2
26	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	595	42	52	+ 10
25	PARAGRAPH MAIN IDEA	545	64	75	+ 11
	SPELLING				
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	400	97	30	- 67
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	424	94	91	- 3
29	SPELLING-END LONG VOWEL	379	98	96	- 2
32	SPELLING-LONG MID-SYL VOWEL-MARKER E PTTRN	469	88	87	- 1
33	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	520	74	86	+ 12

Curriculum Match Profile - X = Expected; 0 = Observed



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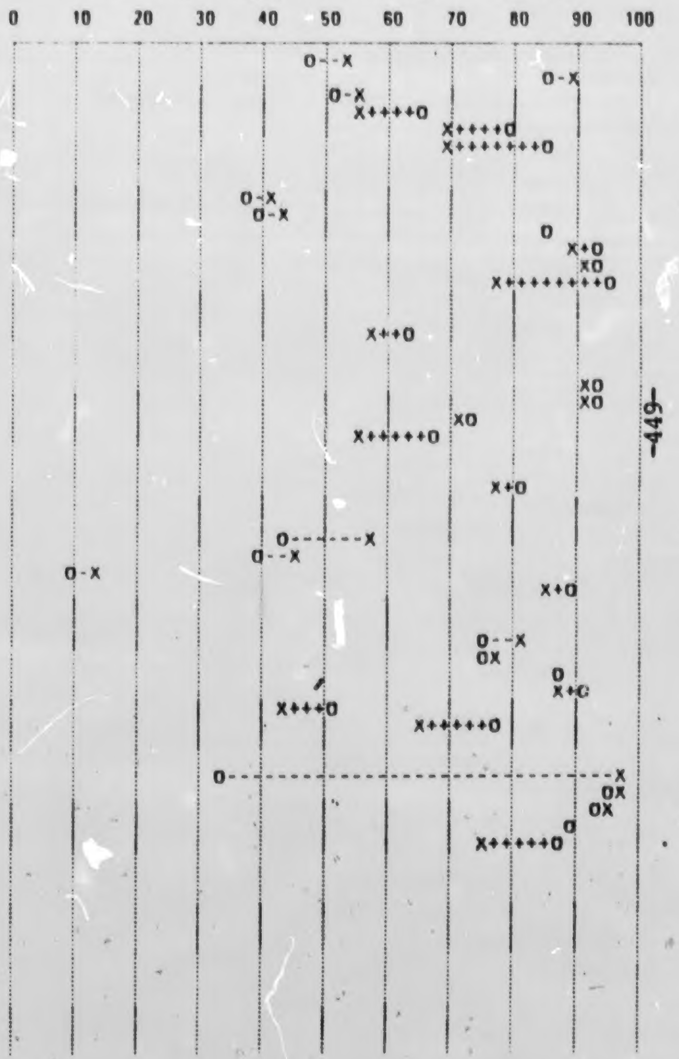
MEDITERRANEAN LANGUAGE ARTS 309 571 MAY-80 4 1 006-5755

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PUNCTUATION				
05	PUNCTUATION-USE OF APOSTROPHES	575	53	47	- 6
02	PUNCTUATION-USE OF COMMAS	466	90	86	- 4
06	PUNCTUATION-USE OF THE COLON	570	55	51	- 4
04	PUNCTUATION-USE OF COMMAS	570	56	65	+ 9
03	PUNCTUATION-USE OF COMMAS	539	69	79	+ 10
01	PUNCTUATION-USE OF COMMAS	538	69	85	+ 16
	USAGE				
12	USAGE-COMPARATIVES AND SUPERLATIVES	600	42	37	- 5
11	USAGE-PRONOUN CASE	596	44	40	- 4
08	USAGE - SUBJECT VERB AGREEMENT	488	85	86	+ 1
07	USAGE - VERB TENSE	466	90	93	+ 3
10	USAGE - DOURLE NEGATIVES	457	91	94	+ 3
09	USAGE - SUBJECT VERB AGREEMENT	513	78	96	+ 18
	SENTENCE PATTERNS				
13	SENTENCE PATTERNS-SUBJECT AND PREDICATE	567	57	63	+ 6
	SENTENCE STRUCTURE				
14	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	450	92	94	+ 2
15	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	91	93	+ 2
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	534	71	74	+ 3
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	568	56	68	+ 12
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
18	BUSINESS LETTER	512	78	82	+ 4
	BUILDING AND CHANGING SENTENCES				
20	BUILDING AND CHANGING SENT - COORDINATION	564	58	43	- 15
22	BUILDING AND CHANGING SENT - SUBORDINATION	593	45	40	- 5
21	BUILDING AND CHANGING SENT - COORDINATION	683	13	9	- 4
19	BUILDING AND CHANGING SENT - COORDINATION	487	86	90	+ 4
	PARAGRAPH DEVELOPMENT				
27	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	504	81	76	- 5
28	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	515	77	76	- 1
23	PARAGRAPH MAIN IDEA	479	87	88	+ 1
24	PARAGRAPH MAIN IDEA	475	88	92	+ 4
26	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	595	44	52	+ 8
25	PARAGRAPH MAIN IDEA	545	66	77	+ 11
	SPELLING				
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	400	97	33	- 64
29	SPELLING-END LONG VOWEL	379	98	96	- 2
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	424	95	93	- 2
32	SPELLING-LONG MID-SYL VOWEL-MARKER E PTTRN	469	89	89	+ 0
33	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	520	76	87	+ 11

Curriculum Match Profile - X = Expected; O = Observed

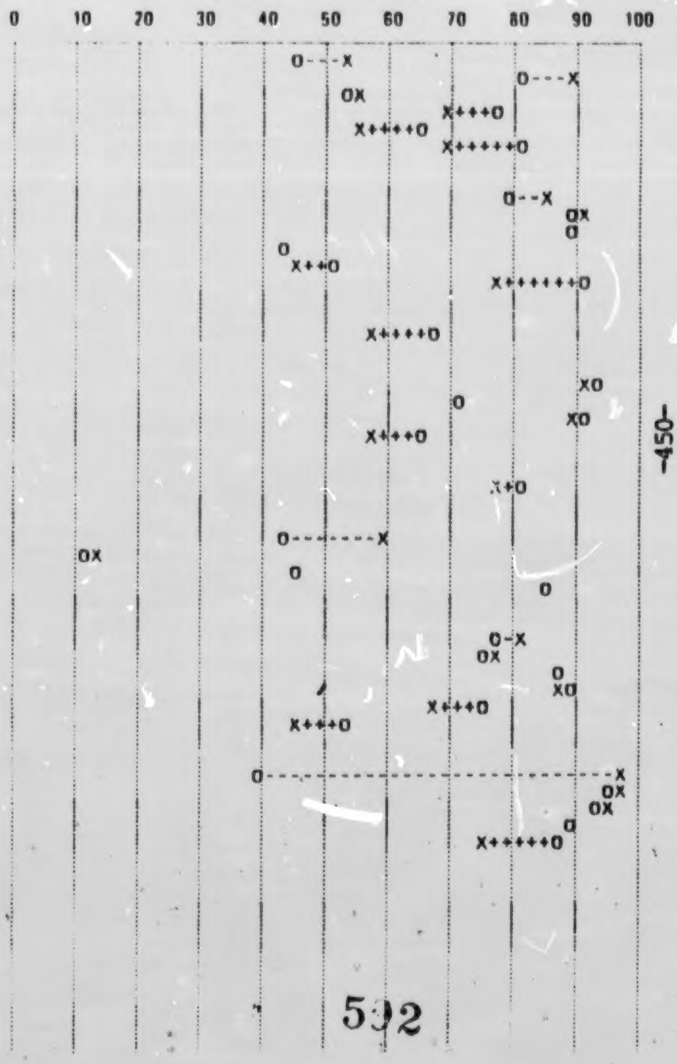


PACIFIC LANGUAGE ARTS 309 976 MAY-80 5 1 006-8224

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 9

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PUNCTUATION				
05	PUNCTUATION-USE OF APOSTROPHES	575	54	46	- 8
02	PUNCTUATION-USE OF COMMAS	466	89	82	- 7
06	PUNCTUATION-USE OF THE COLON	570	56	54	- 2
03	PUNCTUATION-USE OF COMMAS	539	69	78	+ 9
04	PUNCTUATION-USE OF COMMAS	570	56	65	+ 9
01	PUNCTUATION-USE OF COMMAS	538	69	81	+ 12
	USAGE				
08	USAGE - SUBJECT VERB AGREEMENT	488	85	80	- 5
10	USAGE - DOUBLE NEGATIVES	457	91	89	- 2
07	USAGE - VERB TENSE	466	89	90	+ 1
12	USAGE-COMPARATIVES AND SUPERLATIVES	600	43	44	+ 1
11	USAGE-PRONOUN CASE	596	45	51	+ 6
09	USAGE - SUBJECT VERB AGREEMENT	513	78	92	+ 14
	SENTENCE PATTERNS				
13	SENTENCE PATTERNS-SUBJECT AND PREDICATE	567	57	67	+ 10
	SENTENCE STRUCTURE				
14	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	450	92	93	+ 1
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	534	71	72	+ 1
15	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	90	92	+ 2
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	568	57	66	+ 9
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
18	BUSINESS LETTER	512	78	81	+ 3
	BUILDING AND CHANGING SENTENCES				
20	BUILDING AND CHANGING SENT - COORDINATION	564	59	44	- 15
21	BUILDING AND CHANGING SENT - COORDINATION	683	14	11	- 3
22	BUILDING AND CHANGING SENT - SUBORDINATION	593	46	45	- 1
19	BUILDING AND CHANGING SENT - COORDINATION	487	85	86	+ 1
	PARAGRAPH DEVELOPMENT				
27	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	504	81	77	- 4
28	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	515	77	76	- 1
23	PARAGRAPH MAIN IDEA	479	87	88	+ 1
24	PARAGRAPH MAIN IDEA	475	88	90	+ 2
25	PARAGRAPH MAIN IDEA	545	67	76	+ 9
26	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	595	45	54	+ 9
	SPELLING				
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	400	97	40	- 57
29	SPELLING-END LONG VOWEL	379	98	96	- 2
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	424	95	93	- 2
32	SPELLING-LONG MID-SYL VOWEL-MARKER & PTTRN	469	89	90	+ 1
33	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	520	76	88	+ 12

Curriculum Match Profile - X = Expected; O = Observed



-450-

PANAMA LANGUAGE ARTS 309 577 MAY-80 6 1 005-1923

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 9

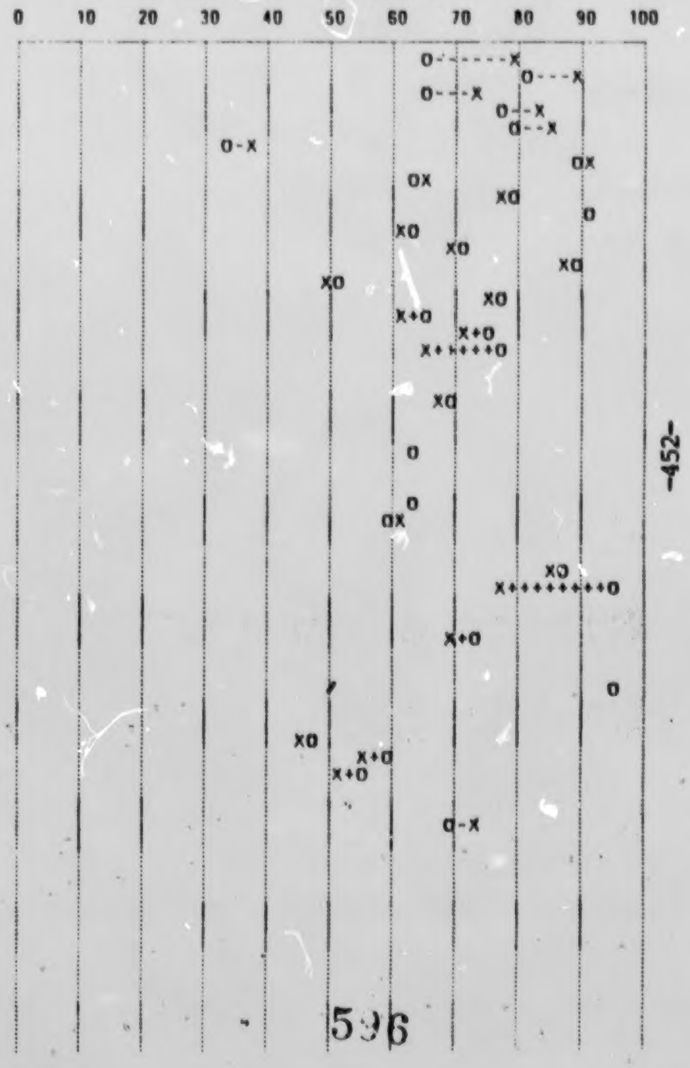
Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy	Curriculum Match Profile - X = Expected; O = Observed (0 10 20 30 40 50 60 70 80 90 100)
	PUNCTUATION					
05	PUNCTUATION-USE OF APOSTROPHES	575	50	38	- 12	O-----X
06	PUNCTUATION-USE OF THE COLON	570	51	41	- 10	O----X
02	PUNCTUATION-USE OF COMMAS	468	88	80	- 8	O---X
04	PUNCTUATION-USE OF COMMAS	570	52	54	+ 2	XO
03	PUNCTUATION-USE OF COMMAS	539	65	69	+ 4	X+O
01	PUNCTUATION-USE OF COMMAS	538	66	80	+ 14	X+++++++O
	USAGE					
12	USAGE-COMPARATIVES AND SUPERLATIVES	600	38	27	- 11	O----X
07	USAGE - VERB TENSE	466	88	84	- 4	O-X
10	USAGE - DOUBLE NEGATIVES	457	90	89	- 1	O
11	USAGE-PRONOUN CASE	596	40	42	+ 2	XO
08	USAGE - SUBJECT VERB AGREEMENT	488	83	87	+ 4	X+O
09	USAGE - SUBJECT VERB AGREEMENT	513	75	93	+ 18	X+++++++++O
	SENTENCE PATTERNS					
13	SENTENCE PATTERNS-SUBJECT AND PREDICATE	567	53	64	+ 11	X++++O
	SENTENCE STRUCTURE					
14	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	450	91	93	+ 2	XO
15	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	89	94	+ [illegible]	X+O
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	534	67	76	+ 9	X+++O
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	568	52	65	+ 13	X+++++++O
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE					
18	BUSINESS LETTER	512	75	77	+ 2	XO
	BUILDING AND CHANGING SENTENCES					
20	BUILDING AND CHANGING SENT - COORDINATION	564	54	46	- 8	O---X
21	BUILDING AND CHANGING SENT - COORDINATION	683	11	12	+ 1	O
22	BUILDING AND CHANGING SENT - SUBORDINATION	593	41	42	+ 1	O
19	BUILDING AND CHANGING SENT - COORDINATION	487	83	87	+ 4	X+O
	PARAGRAPH DEVELOPMENT					
27	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	504	78	75	- 3	OX
23	PARAGRAPH MAIN IDEA	479	85	86	+ 1	O
28	PARAGRAPH DEVELOPMENT-SUBORDINATE DETAIL	515	74	77	+ 3	X+O
24	PARAGRAPH MAIN IDEA	475	86	90	+ 4	X+O
25	PARAGRAPH MAIN IDEA	545	63	73	+ 10	X++++O
26	PARAGRAPH DEVELOPMENT - TOPIC SENTENCE	595	41	55	+ 14	X+++++++O
	SPELLING					
30	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	400	96	22	- 74	O------------------------------------X
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	424	94	92	- 2	OX
29	SPELLING-END LONG VOWEL	379	98	97	- 1	O
32	SPELLING-LONG MID-SYL VOWEL-MARKER E PTTRN	469	87	90	+ 3	XO
33	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	520	73	88	+ 15	X+++++++O

ATLANTIC MATHEMATICS 307 982 MAY-80 1 1 003-3436

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 7

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
07	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	510	79	65	- 14
06	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	462	90	81	- 9
08	DIVIDE DECIMAL BY DECIMAL	527	74	65	- 9
03	ADD DECIMALS-PTS UNALIGNED-DIFF DENOM	494	84	77	- 7
05	MULTIPLY 4 DIGIT X 3-4 DIGIT W REGROUPING	490	85	79	- 6
16	MIXED OPER-NO GROUPING SIGNS-INTEGERS	621	38	34	- 4
04	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	91	90	- 1
23	COMPUTE CONVERSIONS/SIMPLIFICATIONS	553	65	64	- 1
22	COMPUTE CONVERSION OF FRACTION TO EQUIVALENT	517	78	79	+ 1
18	CONVERT FRACTIONS TO DECIMALS	459	91	92	+ 1
24	CONVERT DECIMALS TO FRACTIONS	562	62	63	+ 1
17	CONVERT FRACTIONS TO DECIMALS	543	69	71	+ 2
01	ADD MULTIDIGIT INTGRS WITH REGROUP	480	87	89	+ 2
20	CONVERT DECIMALS TO FRACTIONS	593	49	51	+ 2
09	CONVERT PERCENT TO FRACTION	525	75	78	+ 3
21	CONVERT DECIMALS TO FRACTIONS	560	62	66	+ 4
25	COMPUTE EXPONENTIAL NOTATION	536	71	75	+ 4
02	SUBTRACT-FRACTIONS-COMMON-UNLIKE DENOMS.	555	65	77	+ 12
	NUMERIC CONCEPTS IN TEXT				
10	PRICE IN ONE-PRODUCT AD	546	68	70	+ 2
	MEASUREMENT APPLICATIONS				
11	APPLY METRIC PLANE MEASUREMENT-LINEAR	556	64	63	- 1
	APPLY-PROBABILITY & STATISTICS				
12	APPLY-PROBABILITY & STATISTICS-AVERAGES	557	64	63	- 1
30	APPLY-PROB &STATS-ODDS/PROBABILITY	564	61	60	- 1
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
14	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	483	86	88	+ 2
13	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	518	77	95	+ 18
	COMPREHEND GEOMETRY				
15	COMPRE IDENTIFYING ANGLES	542	69	73	+ 4
	COMPREHENSION-MEASUREMENT				
19	COMPR-MEASUREMENT-STD UNITS(INCL CALENDAR)	410	96	96	+ 0
	APPLY-USE OF SIMPLE FORMULAS				
27	APPLY-USE SIMPLE GEOMETRIC FORMULAS	601	46	47	+ 1
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	576	56	59	+ 3
26	APPLY-USE SIMPLE GEOMETRIC FORMULAS	590	51	55	+ 4
	COMPUTER KNOWLEDGE				
29	COMPUTER KNOWLEDGE	532	73	69	- 4

Curriculum Match Profile - X = Expected; O = Observed



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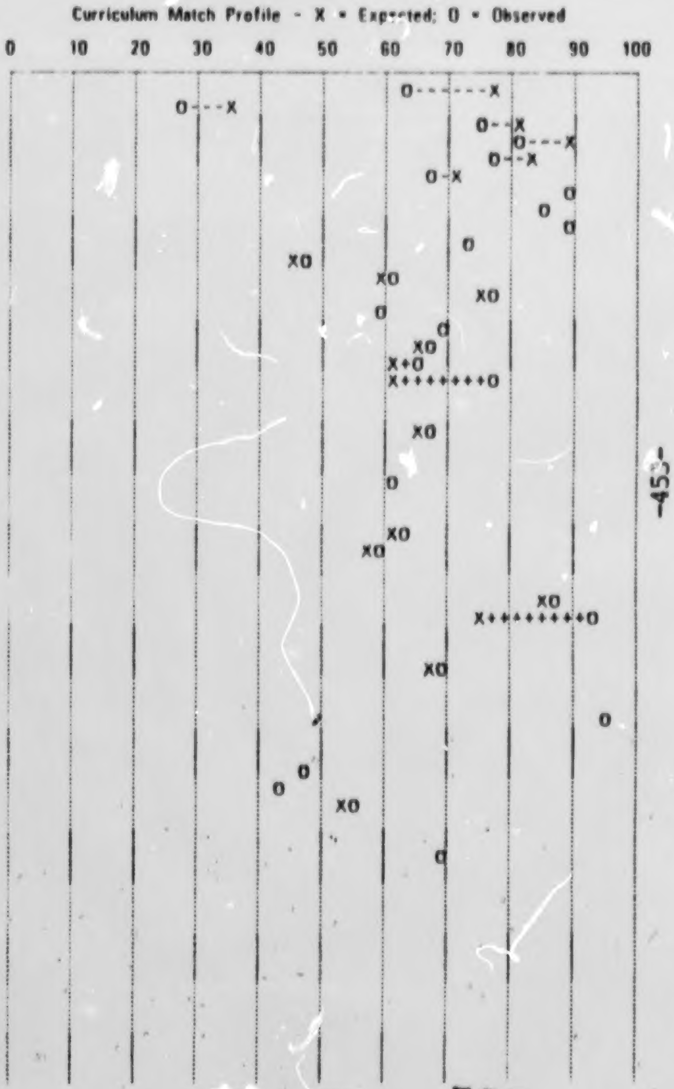
596

GERMANY NORTH MATHEMATICS 307 2,374 MAY-80 2 1 001-8658

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 7

Item No.	Skill Area/Item Descriptor	Calibraten Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
07	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	510	78	64	- 14
16	MIXED OPER-NO GROUPING SIGNS-INTEGERS	621	35	27	- 8
03	ADD DECIMALS-PTS UNALIGNED-DIFF DENOM	494	82	75	- 7
06	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	462	89	82	- 7
05	MULTIPLY 4 DIGIT X 3-4 DIGIT W REGROUPING	490	83	77	- 6
08	DIVIDE DECIMAL BY DECIMAL	527	72	67	- 5
04	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	90	89	- 1
01	ADD MULTIDIGIT INTGRS WITH REGROUP	480	86	86	+ 0
18	CONVERT FRACTIONS TO DECIMALS	459	90	90	+ 0
09	CONVERT PERCENT TO FRACTION	525	73	74	+ 1
20	CONVERT DECIMALS TO FRACTIONS	593	46	47	+ 1
21	CONVERT DECIMALS TO FRACTIONS	560	60	61	+ 1
22	COMPUTE CONVERSION OF FRACTION TO EQUIVALENT	517	76	77	+ 1
24	CONVERT DECIMALS TO FRACTIONS	562	59	60	+ 1
25	COMPUTE EXPONENTIAL NOTATION	536	69	70	+ 1
17	CONVERT FRACTIONS TO DECIMALS	543	66	68	+ 2
23	COMPUTE CONVERSIONS/SIMPLIFICATIONS	553	62	65	+ 3
02	SUBTRACT-FRACTIONS-COMMON-UNLIKE DENOMS.	555	62	77	+ 15
	NUMERIC CONCEPTS IN TEXT				
10	PRICE IN ONE-PRODUCT AD	546	65	67	+ 2
	MEASUREMENT APPLICATIONS				
11	APPLY METRIC PLANE MEASUREMENT-LINEAR	556	61	61	+ 0
	APPLY-PROBABILITY & STATISTICS				
12	APPLY-PROBABILITY & STATISTICS-AVERAGES	557	61	63	+ 2
30	APPLY-PROB &STATS-ODDS/PROBABILITY	564	58	60	+ 2
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
14	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	483	85	87	+ 2
13	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	518	75	93	+ 18
	COMPREHEND GEOMETRY				
15	COMPRE IDENTIFYING ANGLES	542	67	70	+ 3
	COMPREHENSION-MEASUREMENT				
19	COMPR-MEASUREMENT-STD UNITS(INCL CALENDAR)	410	96	95	- 1
	APPLY-USE OF SIMPLE FORMULAS				
26	APPLY-USE SIMPLE GEOMETRIC FORMULAS	590	48	48	+ 0
27	APPLY-USE SIMPLE GEOMETRIC FORMULAS	601	43	44	+ 1
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	576	53	55	+ 2
	COMPUTER KNOWLEDGE				
29	COMPUTER KNOWLEDGE	532	70	70	+ 0

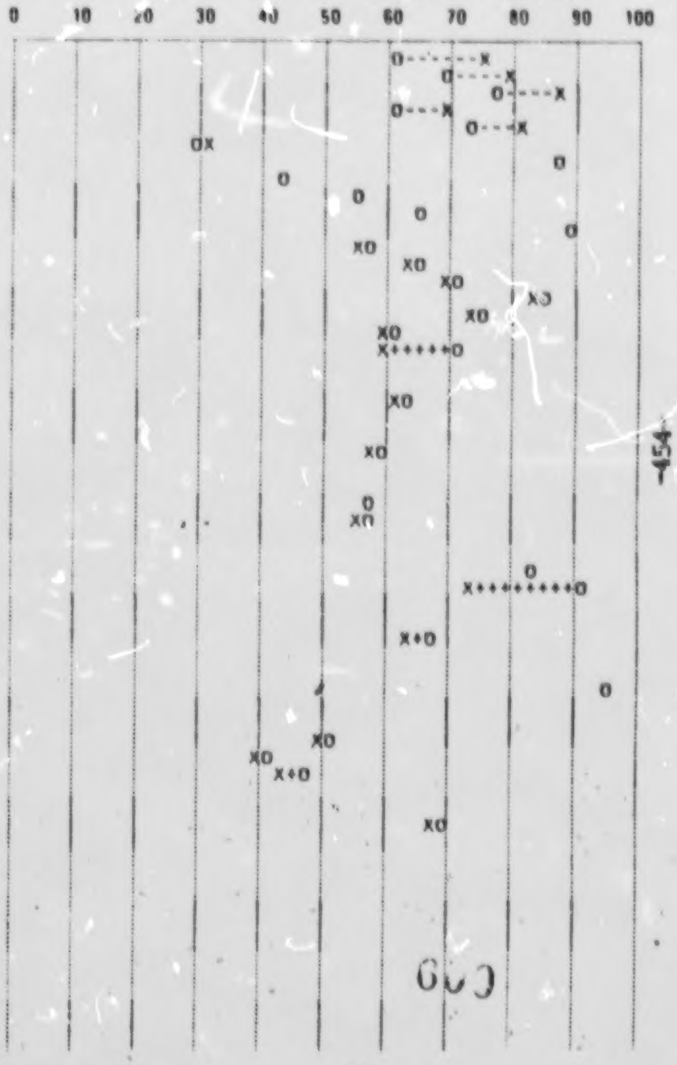


GERMANY SOUTH MATHEMATICS 307 1,771 MAY-80 3 1 007-6704

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 7

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
07	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	510	75	62	- 13
03	ADD DECIMALS-PTS UNALIGNED-DIFF DENOM	494	80	69	- 11
06	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	462	88	78	- 10
08	DIVIDE DECIMAL BY DECIMAL	527	70	62	- 8
05	MULTIPLY 4 DIGIT X 3-4 DIGIT W REGROUPING	490	81	74	- 7
16	MIXED OPER-NO GROUPING SIGNS-INTEGERS	621	32	30	- 2
04	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	88	88	+ 0
20	CONVERT DECIMALS TO FRACTIONS	593	43	43	+ 0
24	CONVERT DECIMALS TO FRACTIONS	562	56	56	+ 0
25	COMPUTE EXPONENTIAL NOTATION	536	66	66	+ 0
18	CONVERT FRACTIONS TO DECIMALS	459	89	90	+ 1
21	CONVERT DECIMALS TO FRACTIONS	560	56	57	+ 1
17	CONVERT FRACTIONS TO DECIMALS	543	63	65	+ 2
09	CONVERT PERCENT TO FRACTION	525	70	72	+ 2
01	ADD MULTIDIGIT INTGRS WITH REGROUP	480	84	86	+ 2
22	COMPUTE CONVERSION OF FRACTION TO EQUIVALENT	517	73	76	+ 3
23	COMPUTE CONVERSIONS/SIMPLIFICATIONS	553	59	62	+ 3
02	SUBTRACT-FRACTIONS-COMMON-UNLIKE DENOMS.	555	59	71	+ 12
	NUMERIC CONCEPTS IN TEXT				
10	PRICE IN ONE-PRODUCT AD	546	62	63	+ 1
	MEASUREMENT APPLICATIONS				
11	APPLY METRIC PLANE MEASUREMENT-LINEAR	556	58	59	+ 1
	APPLY-PROBABILITY & STATISTICS				
12	APPLY-PROBABILITY & STATISTICS-AVERAGES	557	58	57	- 1
30	APPLY-PROB &STATS-ODDS/PROBABILITY	564	55	57	+ 2
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
14	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	483	83	84	+ 1
13	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	518	73	92	+ 19
	COMPREHEND GEOMETRY				
15	COMPRE IDENTIFYING ANGLES	542	64	67	+ 3
	COMPREHENSION-MEASUREMENT				
19	COMPR-MEASUREMENT-STD UNITS(INCL CALENDAR)	410	95	96	+ 1
	APPLY-USE OF SIMPLE FORMULAS				
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	576	50	51	+ 1
27	APPLY-USE SIMPLE GEOMETRIC FORMULAS	601	40	41	+ 1
26	APPLY-USE SIMPLE GEOMETRIC FORMULAS	590	44	47	+ 3
	COMPUTER KNOWLEDGE				
29	COMPUTER KNOWLEDGE	532	68	70	+ 2

Curriculum Match Profile - X = Expected; O = Observed

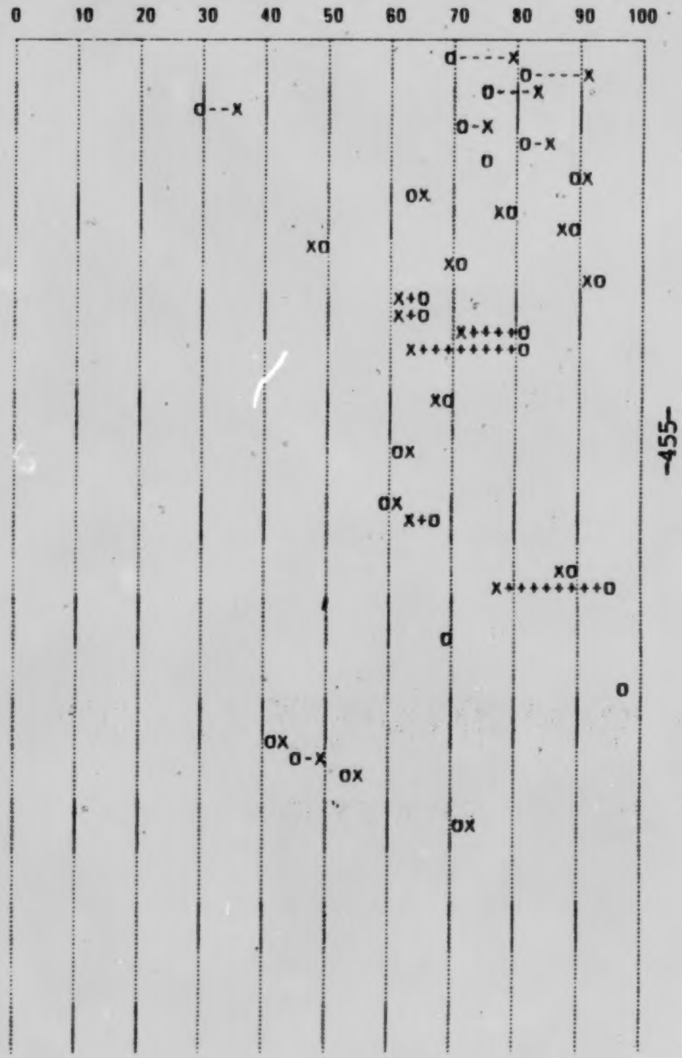


MEDITERRANEAN MATHEMATICS 307 809 MAY-80 4 1 006-5729

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 7

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
07	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	510	80	69	- 11
06	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	462	91	82	- 9
03	ADD DECIMALS-PTS UNALIGNED-DIFF DENOM	494	84	75	- 9
16	MIXED OPER-NO GROUPING SIGNS-INTEGERS	621	36	29	- 7
08	DIVIDE DECIMAL BY DECIMAL	527	75	71	- 4
05	MULTIPLY 4 DIGIT X 3-4 DIGIT W REGROUPING	490	85	81	- 4
09	CONVERT PERCENT TO FRACTION	525	76	75	- 1
04	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	91	90	- 1
23	COMPUTE CONVERSIONS/SIMPLIFICATIONS	553	65	64	- 1
22	COMPUTE CONVERSION OF FRACTION TO EQUIVALENT	517	78	79	+ 1
01	ADD MULTIDIGIT INTGRS WITH REGROUP	480	88	89	+ 1
20	CONVERT DECIMALS TO FRACTIONS	593	48	50	+ 2
17	CONVERT FRACTIONS TO DECIMALS	543	69	71	+ 2
18	CONVERT FRACTIONS TO DECIMALS	459	91	93	+ 2
21	CONVERT DECIMALS TO FRACTIONS	560	62	65	+ 3
24	CONVERT DECIMALS TO FRACTIONS	562	61	65	+ 4
25	COMPUTE EXPONENTIAL NOTATION	536	71	81	+ 10
02	SUBTRACT-FRACTIONS-COMMON-UNLIKE DENOMS.	555	64	81	+ 17
	NUMERIC CONCEPTS IN TEXT				
10	PRICE IN ONE-PRODUCT AD	546	68	70	+ 2
	MEASUREMENT APPLICATIONS				
11	APPLY METRIC PLANE MEASUREMENT-LINEAR	556	64	61	- 3
	APPLY-PROBABILITY & STATISTICS				
30	APPLY-PROB &STATS-ODDS/PROBABILITY	564	61	59	- 2
12	APPLY-PROBABILITY & STATISTICS-AVERAGES	557	63	67	+ 4
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
14	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	483	87	89	+ 2
13	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	518	78	95	+ 17
	COMPREHEND GEOMETRY				
15	COMPRE IDENTIFYING ANGLES	542	69	70	+ 1
	COMPREHENSION-MEASUREMENT				
19	COMPR-MEASUREMENT-STD UNITS(INCL CALENDAR)	410	97	97	+ 0
	APPLY-USE OF SIMPLE FORMULAS				
27	APPLY-USE SIMPLE GEOMETRIC FORMULAS	601	44	41	- 3
26	APPLY-USE SIMPLE GEOMETRIC FORMULAS	590	49	46	- 3
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	576	55	53	- 2
	COMPUTER KNOWLEDGE				
29	COMPUTER KNOWLEDGE	532	73	72	- 1

Curriculum Match Profile - X = Expected; O = Observed



PACIFIC MATHEMATICS 307 1,215 · MAY-80 5 1 004-7027

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 7

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy	Curriculum Match Profile - X = Expected; O = Observed (0 10 20 30 40 50 60 70 80 90 100)
	ARITHMETIC COMPUTATION					
07	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	510	78	66	- 12	O-----X
06	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	462	90	81	- 9	O---X
08	DIVIDE DECIMAL BY DECIMAL	527	72	66	- 6	O--X
05	MULTIPLY 4 DIGIT X 3-4 DIGIT W REGROUPING	490	83	80	- 3	O-X
25	COMPUTE EXPONENTIAL NOTATION	536	69	66	- 3	O-X
22	COMPUTE CONVERSION OF FRACTION TO EQUIVALENT	517	76	74	- 2	OX
16	MIXED OPER-NO GROUPING SIGNS-INTEGERS	621	35	33	- 2	OX
09	CONVERT PERCENT TO FRACTION	525	73	72	- 1	OX
18	CONVERT FRACTIONS TO DECIMALS	459	90	90	+ 0	O
03	ADD DECIMALS-PTS UNALIGNED-DIFF DENOM	494	82	82	+ 0	O
04	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	90	90	+ 0	O
17	CONVERT FRACTIONS TO DECIMALS	543	66	67	+ 1	XO
21	CONVERT DECIMALS TO FRACTIONS	560	59	60	+ 1	O
23	COMPUTE CONVERSIONS/SIMPLIFICATIONS	553	62	64	+ 2	XO
24	CONVERT DECIMALS TO FRACTIONS	562	59	61	+ 2	XO
01	ADD MULTIDIGIT INTGRS WITH REGROUP	480	86	88	+ 2	XO
20	CONVERT DECIMALS TO FRACTIONS	593	46	49	+ 3	X+O
02	SUBTRACT-FRACTIONS-COMMON-UNLIKE DENOMS.	555	62	78	+ 16	X+++++++O
	NUMERIC CONCEPTS IN TEXT					
10	PRICE IN ONE-PRODUCT AD	546	65	65	+ 0	O
	MEASUREMENT APPLICATIONS					
11	APPLY METRIC PLANE MEASUREMENT-LINEAR	556	61	63	+ 2	XO
	APPLY-PROBABILITY & STATISTICS					
30	APPLY-PROB &STATS-ODDS/PROBABILITY	564	58	55	- 3	OX
12	APPLY-PROBABILITY & STATISTICS-AVERAGES	557	61	65	+ 4	X+O
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)					
14	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	483	85	87	+ 2	XO
13	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	518	75	94	+ 19	X++++++++O
	COMPREHEND GEOMETRY					
15	COMPRE IDENTIFYING ANGLES	542	67	63	- 4	O-X
	COMPREHENSION-MEASUREMENT					
19	COMPR-MEASUREMENT-STD UNITS(INCL CALENDAR)	410	96	96	+ 0	O
	APPLY-USE OF SIMPLE FORMULAS					
27	APPLY-USE SIMPLE GEOMETRIC FORMULAS	601	43	41	- 2	OX
26	APPLY-USE SIMPLE GEOMETRIC FORMULAS	590	47	47	+ 0	O
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	576	53	54	+ 1	O
	COMPUTER KNOWLEDGE					
29	COMPUTER KNOWLEDGE	532	70	73	+ 3	X+O

PANAMA MATHEMATICS 307 576 MAY-80 6 1 005-1585

DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 7

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy	Curriculum Match Profile - X = Expected; 0 = Observed (0 10 20 30 40 50 60 70 80 90 100)
	ARITHMETIC COMPUTATION					
08	DIVIDE DECIMAL BY DECIMAL	527	64	52	- 12	0-----X
25	COMPUTE EXPONENTIAL NOTATION	536	60	51	- 9	0---X
03	ADD DECIMALS-PTS UNALIGNED-DIFF DENOM	494	76	69	- 7	0--X
07	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	510	71	64	- 7	0---X
17	CONVERT FRACTIONS TO DECIMALS	543	57	51	- 6	0--X
06	MULTIPLY WHOLE NUM X MIXED FRACT-NO RENAME	462	85	80	- 5	0--X
21	CONVERT DECIMALS TO FRACTIONS	560	50	46	- 4	0-X
24	CONVERT DECIMALS TO FRACTIONS	562	49	46	- 3	0-X
18	CONVERT FRACTIONS TO DECIMALS	459	86	83	- 3	0X
20	CONVERT DECIMALS TO FRACTIONS	593	36	34	- 2	0X
23	COMPUTE CONVERSIONS/SIMPLIFICATIONS	553	53	51	- 2	0X
05	MULTIPLY 4 DIGIT X 3-4 DIGIT W REGROUPING	490	78	78	+ 0	0
04	SUBTRACT MULTIDIGIT INTEGERS W/REGROUPING	460	86	87	+ 1	X0
01	ADD MULTIDIGIT INTGRS WITH REGROUP	480	81	82	+ 1	0
22	COMPUTE CONVERSION OF FRACTION TO EQUIVALENT	517	68	70	+ 2	X0
09	CONVERT PERCENT TO FRACTION	525	65	67	+ 2	X0
16	MIXED OPER-NO GROUPING SIGNS-INTEGERS	621	26	36	+ 10	X++++0
02	SUBTRACT-FRACTIONS-COMMON-UNLIKE DENOMS.	555	53	70	+ 17	X++++++++0
	NUMERIC CONCEPTS IN TEXT					
10	PRICE IN ONE-PRODUCT AD	546	56	58	+ 2	X0
	MEASUREMENT APPLICATIONS					
11	APPLY METRIC PLANE MEASUREMENT-LINEAR	556	52	66	+ 14	X++++++0
	APPLY-PROBABILITY & STATISTICS					
12	APPLY-PROBABILITY & STATISTICS-AVERAGES	557	51	43	- 8	0---X
30	APPLY-PROB &STATS-ODDS/PROBABILITY	564	49	56	+ 7	X++0
	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)					
14	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	483	80	82	+ 2	X0
13	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	518	68	91	+ 23	X+++++++++++0
	COMPREHEND GEOMETRY					
15	COMPRE IDENTIFYING ANGLES	542	58	50	- 8	0---X
	COMPREHENSION-MEASUREMENT					
19	COMPR-MEASUREMENT-STD UNITS(INCL CALENDAR)	410	94	96	+ 2	X0
	APPLY-USE OF SIMPLE FORMULAS					
28	APPLY-USE SIMPLE GEOMETRIC FORMULAS	576	43	37	- 6	0--X
26	APPLY-USE SIMPLE GEOMETRIC FORMULAS	590	37	37	+ 0	0
27	APPLY-USE SIMPLE GEOMETRIC FORMULAS	601	33	35	+ 2	X0
	COMPUTER KNOWLEDGE					
29	COMPUTER KNOWLEDGE	532	62	68	+ 6	X++0

ATLANTIC LANGUAGE ARTS 306 1,033 MAY-80 1 1 001-4471

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 6

Curriculum Match Profile - X = Expected; O = Observed (scale 0 10 20 30 40 50 60 70 80 90 100)

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy	Curriculum Match Profile
	PUNCTUATION					
07	PUNCTUATION-USE OF APOSTROPHES	575	42	32	- 10	O----X
05	PUNCTUATION-USE OF APOSTROPHES	527	63	54	- 9	O----X
03	PUNCTUATION-USE OF COMMAS	499	74	71	- 3	OX
06	PUNCTUATION-USE OF APOSTROPHES	535	60	58	- 2	OX
02	PUNCTUATION-USE OF QUOTATION MARKS	500	74	77	+ 3	X+O
04	PUNCTUATION-USE OF COMMAS	538	58	63	+ 5	X++O
01	PUNCTUATION-USE OF QUOTATION MARKS	512	70	82	+ 12	X+++++O
	DIVISION OF WORD FORMS					
08	WORD DIVISION-SYLLABICATION	455	87	89	+ 2	XO
	USAGE					
14	USAGE-PRONOUN CASE	501	74	69	- 5	O-X
09	USAGE - SUBJECT VERB AGREEMENT	556	50	46	- 4	O-X
12	USAGE-PRONOUN CASE	506	72	70	- 2	OX
11	USAGE - DOUBLE NEGATIVES	468	84	83	- 1	O
15	USAGE-COMPARATIVES AND SUPERLATIVES	498	75	76	+ 1	O
10	USAGE - SUBJECT VERB AGREEMENT	450	88	91	+ 3	X+O
13	USAGE-ADVERB/ADJECTIVE CONSTRUCTIONS	524	65	75	+ 10	X++++O
	SENTENCE STRUCTURE					
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	581	38	33	- 5	O-X
18	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	86	82	- 4	O-X
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	90	91	+ 1	XO
19	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	545	55	72	+ 17	X+++++++O
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE					
20	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	85	86	+ 1	O
21	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	477	82	84	+ 2	XO
22	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	462	86	92	+ 6	X++O
	BUILDING AND CHANGING SENTENCES					
23	BUILD AND CHANGE SENTENCES-COMPOUNDING	469	84	83	- 1	O
24	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	89	88	- 1	OX
	SPELLING					
28	SPELLING-END LONG VOWEL	510	70	68	- 2	OX
25	SPELLING-END LONG VOWEL	379	97	96	- 1	OX
29	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	495	76	75	- 1	O
26	SPELL-WORD W/ SHORT VOWEL DIGRAPH	391	96	96	+ 0	O
27	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	423	93	95	+ 2	XO

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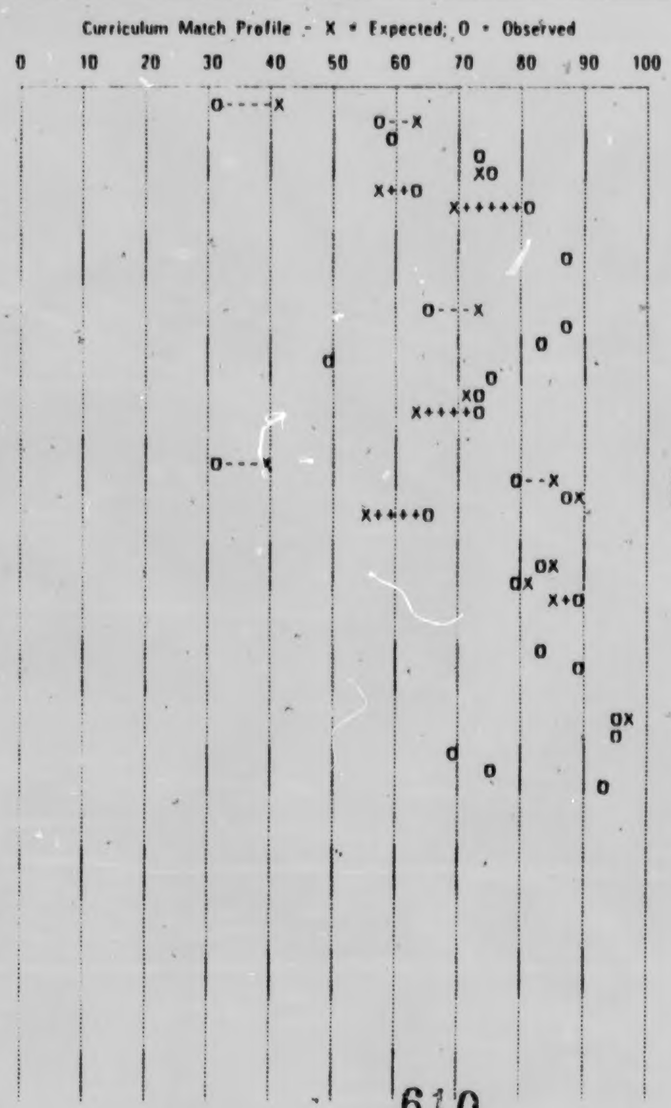
GERMANY NORTH LANGUAGE ARTS 306 2.985 MAY-80 2 1 C03-3388

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 6

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PUNCTUATION				
07	PUNCTUATION-USE OF APOSTROPHES	575	42	31	- 11
05	PUNCTUATION-USE OF APOSTROPHES	527	63	57	- 6
06	PUNCTUATION-USE OF APOSTROPHES	535	60	60	+ 0
02	PUNCTUATION-USE OF QUOTATION MARKS	500	74	74	+ 0
03	PUNCTUATION-USE OF COMMAS	499	74	76	+ 2
04	PUNCTUATION-USE OF COMMAS	538	58	63	+ 5
01	PUNCTUATION-USE OF QUOTATION MARKS	512	69	81	+ 12
	DIVISION OF WORD FORMS				
08	WORD DIVISION-SYLLABICATION	455	87	87	+ 0
	USAGE				
14	USAGE-PRONOUN CASE	501	73	66	- 7
10	USAGE - SUBJECT VERB AGREEMENT	450	88	87	- 1
11	USAGE - DOUBLE NEGATIVES	468	84	84	+ 0
09	USAGE - SUBJECT VERB AGREEMENT	556	50	50	+ 0
15	USAGE-COMPARATIVES AND SUPERLATIVES	498	75	75	+ 0
12	USAGE-PRONOUN CASE	506	71	74	+ 3
13	USAGE-ADVERB/ADJECTIVE CONSTRUCTIONS	524	64	74	+ 10
	SENTENCE STRUCTURE				
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	581	39	32	- 7
18	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	85	80	- 5
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	90	88	- 2
19	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	545	55	65	+ 10
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
20	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	85	84	- 1
21	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	477	81	80	- 1
22	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	462	85	90	+ 5
	BUILDING AND CHANGING SENTENCES				
23	BUILD AND CHANGE SENTENCES-COMPOUNDING	469	83	83	+ 0
24	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	89	89	+ 0
	SPELLING				
25	SPELLING-END LONG VOWEL	379	97	96	- 1
26	SPELL-WORD W/ SHORT VOWEL DIGRAPH	391	96	95	- 1
28	SPELLING-END LONG VOWEL	510	70	70	+ 0
29	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	495	75	75	+ 0
27	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	423	93	94	+ 1

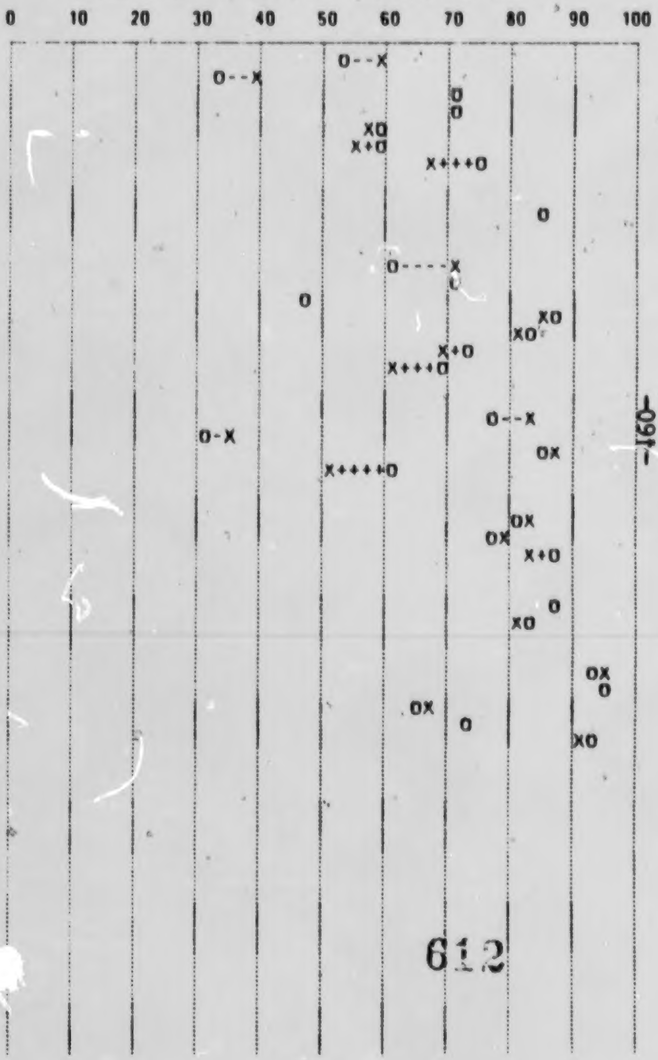


GERMANY SOUTH LANGUAGE ARTS 306 2,068 MAY-80 3 1 001-3835

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 6

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PUNCTUATION				
05	PUNCTUATION-USE OF APOSTROPHES	527	60	53	- 7
07	PUNCTUATION-USE OF APOSTROPHES	575	39	33	- 6
03	PUNCTUATION-USE OF COMMAS	499	72	71	- 1
02	PUNCTUATION-USE OF QUOTATION MARKS	500	71	71	+ 0
06	PUNCTUATION-USE OF APOSTROPHES	535	57	59	+ 2
04	PUNCTUATION-USE OF COMMAS	538	55	60	+ 5
01	PUNCTUATION-USE OF QUOTATION MARKS	512	67	76	+ 9
	DIVISION OF WORD FORMS				
08	WORD DIVISION-SYLLABICATION	455	85	86	+ 1
	USAGE				
14	USAGE-PRONOUN CASE	501	71	62	- 9
15	USAGE-COMPARATIVES AND SUPERLATIVES	498	72	71	- 1
09	USAGE - SUBJECT VERB AGREEMENT	556	47	47	+ 0
10	USAGE - SUBJECT VERB AGREEMENT	450	86	87	+ 1
11	USAGE - DOUBLE NEGATIVES	468	82	83	+ 1
12	USAGE-PRONOUN CASE	506	69	74	+ 5
13	USAGE-ADVERB/ADJECTIVE CONSTRUCTIONS	524	62	69	+ 7
	SENTENCE STRUCTURE				
18	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	83	77	- 6
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	581	36	31	- 5
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	88	86	- 2
19	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	545	52	62	+ 10
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
20	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	83	81	- 2
21	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	477	79	78	- 1
22	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	462	83	88	+ 5
	BUILDING AND CHANGING SENTENCES				
24	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	88	87	- 1
23	BUILD AND CHANGE SENTENCES-COMPOUNDING	469	81	83	+ 2
	SPELLING				
26	SPELL-WORD W/ SHORT VOWEL DIGRAPH	391	95	93	- 2
25	SPELLING-END LONG VOWEL	379	96	95	- 1
28	SPELLING-END LONG VOWEL	510	67	66	- 1
29	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	495	73	74	+ 1
27	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	423	91	94	+ 3

Curriculum Match Profile - X = Expected; 0 = Observed



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611

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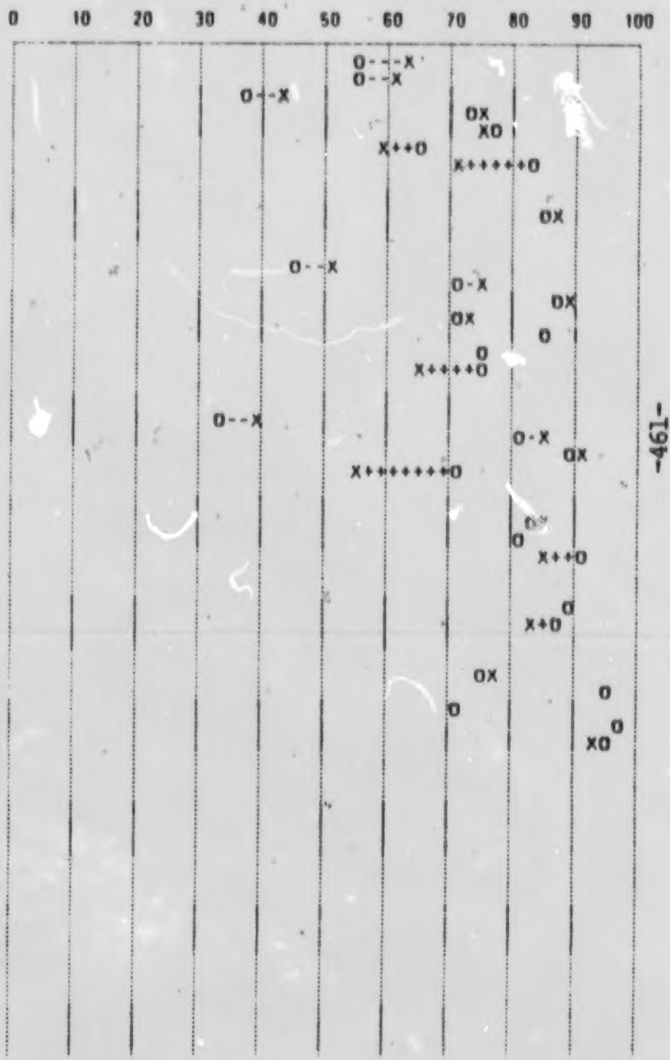
DEPARTMENT OF DEFENSE
DEPENDENTS SCHOOLS

MEDITERRANEAN LANGUAGE ARTS 306 1,063 MAY-80 4 1 006-5644

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 6

Item No.	Skill Area/Item Descripter	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PUNCTUATION				
05	PUNCTUATION-USE OF APOSTROPHES	527	64	55	- 9
06	PUNCTUATION-USE OF APOSTROPHES	535	61	55	- 6
07	PUNCTUATION-USE OF APOSTROPHES	575	43	38	- 5
03	PUNCTUATION-USE OF COMMAS	499	75	73	- 2
02	PUNCTUATION-USE OF QUOTATION MARKS	500	75	78	+ 3
04	PUNCTUATION-USE OF COMMAS	538	59	65	+ 6
01	PUNCTUATION-USE OF QUOTATION MARKS	512	71	83	+ 12
	DIVISION OF WORD FORMS				
08	WORD DIVISION-SYLLABICATION	455	88	86	- 2
	USAGE				
09	USAGE - SUBJECT VERB AGREEMENT	556	51	46	- 5
14	USAGE-PRONOUN CASE	501	75	71	- 4
10	USAGE - SUBJECT VERB AGREEMENT	450	89	87	- 2
12	USAGE-PRONOUN CASE	506	73	72	- 1
11	USAGE - DOUBLE NEGATIVES	468	85	85	+ 0
15	USAGE-COMPARATIVES AND SUPERLATIVES	498	76	76	+ 0
13	USAGE-ADVERB/ADJECTIVE CONSTRUCTIONS	524	66	75	+ 9
	SENTENCE STRUCTURE				
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	581	40	33	- 7
18	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	86	82	- 4
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	91	89	- 2
19	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	545	56	72	+ 16
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
20	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	86	84	- 2
21	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	477	82	82	+ 0
22	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	462	86	91	+ 5
	BUILDING AND CHANGING SENTENCES				
24	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	90	90	+ 0
23	BUILD AND CHANGE SENTENCES-COMPOUNDING	469	84	87	+ 3
	SPELLING				
29	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	495	77	75	- 2
26	SPELL-WORD W/ SHORT VOWEL DIGRAPH	391	96	95	- 1
28	SPELLING-END LONG VOWEL	510	71	71	+ 0
25	SPELLING-END LONG VOWEL	379	97	97	+ 0
27	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	423	93	95	+ 2

Curriculum Match Profile - X = Expected; O = Observed

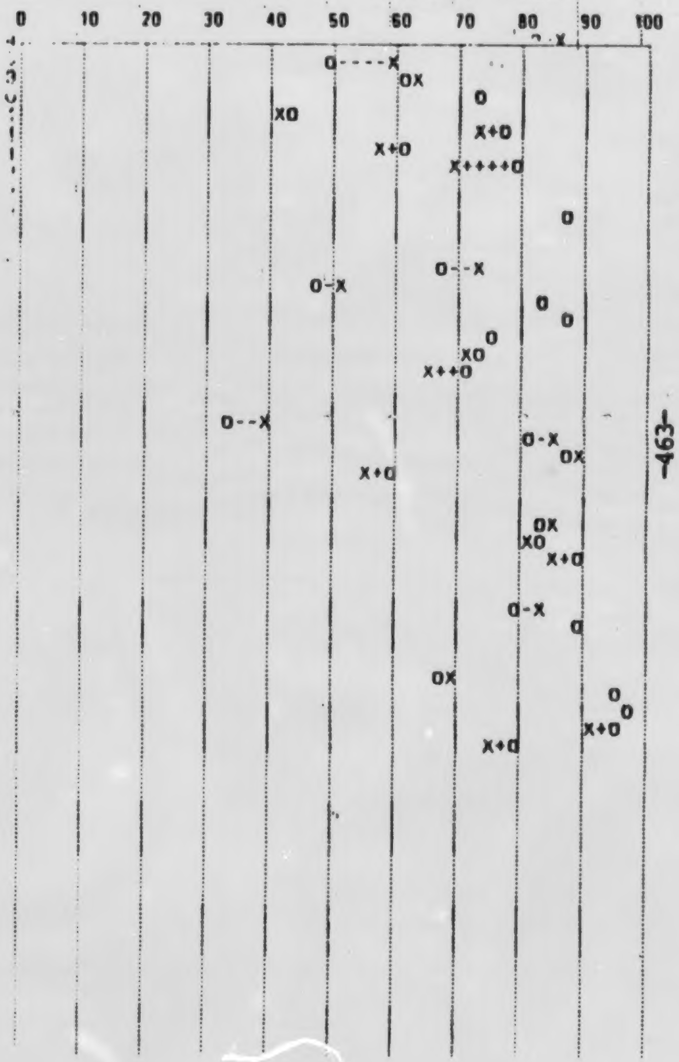


PANAMA LANGUAGE ARTS 306 572 MAY-80 6 1 004-1277

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 6

em No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PUNCTUATION				
06	PUNCTUATION-USE OF APOSTROPHES	535	60	50	- 10
05	PUNCTUATION-USE OF APOSTROPHES	527	63	62	- 1
02	PUNCTUATION-USE OF QUOTATION MARKS	500	74	74	+ 0
07	PUNCTUATION-USE OF APOSTROPHES	575	42	43	+ 1
03	PUNCTUATION-USE OF COMMAS	499	74	77	+ 3
04	PUNCTUATION-USE OF COMMAS	538	58	62	+ 4
01	PUNCTUATION-USE OF QUOTATION MARKS	512	69	80	+ 11
	DIVISION OF WORD FORMS				
08	WORD DIVISION-SYLLABICATION	455	87	87	+ 0
	USAGE				
14	USAGE-PRONOUN CASE	501	73	67	- 6
09	USAGE - SUBJECT VERB AGREEMENT	556	51	48	- 3
11	USAGE - DOUBLE NEGATIVES	468	84	84	+ 0
10	USAGE - SUBJECT VERB AGREEMENT	450	88	88	+ 0
15	USAGE-COMPARATIVES AND SUPERLATIVES	498	75	75	+ 0
12	USAGE-PRONOUN CASE	506	71	73	+ 2
13	USAGE-ADVERB/ADJECTIVE CONSTRUCTIONS	524	65	72	+ 7
	SENTENCE STRUCTURE				
16	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	581	39	34	- 5
18	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	461	85	81	- 4
17	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	90	88	- 2
19	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	545	55	60	+ 5
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
20	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	85	83	- 2
21	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	477	81	83	+ 2
22	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	462	85	89	+ 4
	BUILDING AND CHANGING SENTENCES				
23	BUILD AND CHANGE SENTENCES-COMPOUNDING	469	83	79	- 4
24	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	89	90	+ 1
	SPELLING				
28	SPELLING-END LONG VOWEL	510	70	67	- 3
26	SPELL-WORD W/ SHORT VOWEL DIGRAPH	391	96	95	- 1
25	SPELLING-END LONG VOWEL	379	97	97	+ 0
27	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	423	92	96	+ 4
29	SPELLING-FREQ MISSPELL WORD DUE TO MISPRON	495	76	80	+ 4

Curriculum Match Profile - X = Expected; O = Observed



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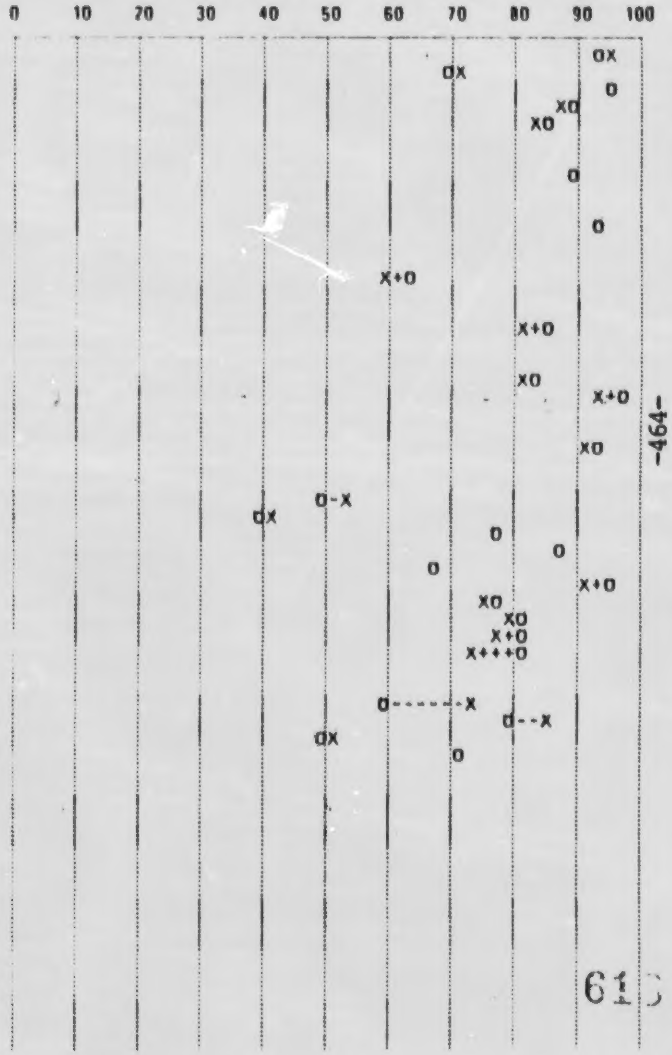
ATLANTIC READING 306 1,063 MAY-80 1 1 001-4458

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 6

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
02	PLURAL NOUNS-INFLECTIONAL ENDINGS	438	95	93	- 2
05	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	539	72	70	- 2
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	437	95	95	+ 0
03	PREFIXES	487	87	89	+ 2
09	SUFFIXES	505	83	85	+ 2
	MULTIPLE WORD FORMS				
04	CONTRACTIONS	476	89	89	+ 0
	WORD RECOGNITION				
06	WORD RECOGNITION-IRREGULAR VERBS	456	93	94	+ 1
	DICTIONARY				
07	GUIDE WORDS	572	59	63	+ 4
08	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	82	85	+ 3
	WORD MEANING				
17	WORD MEANING-CONTEXTUAL MEANING	510	82	84	+ 2
10	WORD MEANING-CONTEXTUAL MEANING	441	94	97	+ 3
	LITERAL COMPREHENSION				
11	LITERAL COMPREHENSION-DETAILS	459	92	93	+ 1
	INTERPRETIVE COMPREHENSION				
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	54	50	- 4
22	INTER COMP - CAUSE AND EFFECT	615	41	40	- 1
13	INTERPRETIVE COMPREHENSION-MAIN IDEA	523	78	77	- 1
18	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	490	87	87	+ 0
23	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	554	67	68	+ 1
19	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	459	92	95	+ 3
24	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	75	78	+ 3
15	INTERPRETIVE COMPREHENSION-MAIN IDEA	518	79	82	+ 3
12	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	524	78	82	+ 4
14	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	534	74	81	+ 7
	EVALUATIVE COMPREHENSION				
20	EVAL COMP - PREDICTIVE OUTCOMES	533	74	59	- 15
25	EVAL COMP - IDENTIFY AUTHORS PURPOSE	496	85	80	- 5
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	52	50	- 2
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	544	71	71	+ 0

Curriculum Match Profile - X = Expected; O = Observed



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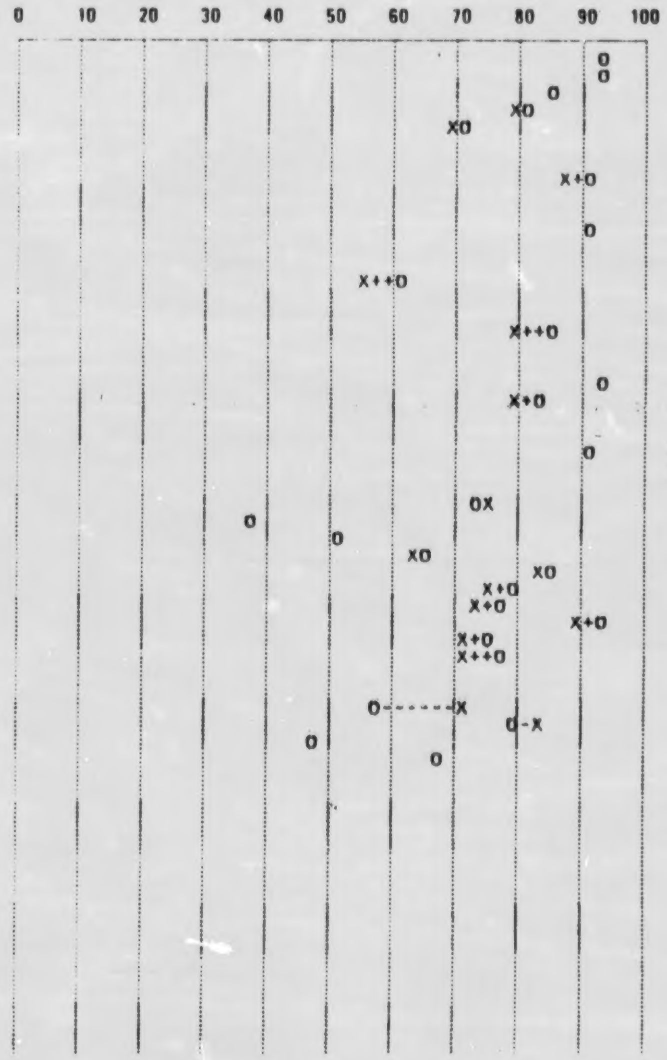
GERMANY NORTH READING 306 3,002 MAY-80 2 1 003-3386

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 6

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	437	94	94	+ 0
02	PLURAL NOUNS-INFLECTIONAL ENDINGS	438	94	94	+ 0
03	PREFIXES	487	85	86	+ 1
09	SUFFIXES	505	80	81	+ 1
05	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	539	69	71	+ 2
	MULTIPLE WORD FORMS				
04	CONTRACTIONS	476	87	91	+ 4
	WORD RECOGNITION				
06	WORD RECOGNITION-IRREGULAR VERBS	456	91	92	+ 1
	DICTIONARY				
07	GUIDE WORDS	572	56	61	+ 5
08	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	79	85	+ 6
	WORD MEANING				
10	WORD MEANING-CONTEXTUAL MEANING	441	93	94	+ 1
17	WORD MEANING-CONTEXTUAL MEANING	516	79	84	+ 5
	LITERAL COMPREHENSION				
11	LITERAL COMPREHENSION-DETAILS	459	91	92	+ 1
	INTERPRETIVE COMPREHENSION				
13	INTERPRETIVE COMPREHENSION-MAIN IDEA	523	75	73	- 2
22	INTER COMP - CAUSE AND EFFECT	615	38	38	+ 0
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	51	52	+ 1
23	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	554	63	65	+ 2
18	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	490	84	86	+ 2
15	INTERPRETIVE COMPREHENSION-MAIN IDEA	518	76	79	+ 3
12	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	524	74	77	+ 3
19	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	459	90	94	+ 4
24	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	71	76	+ 5
14	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	534	71	77	+ 6
	EVALUATIVE COMPREHENSION				
20	EVAL COMP - PREDICTIVE OUTCOMES	533	71	58	- 13
25	EVAL COMP - IDENTIFY AUTHORS PURPOSE	496	83	79	- 4
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	48	47	- 1
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	544	67	67	+ 0

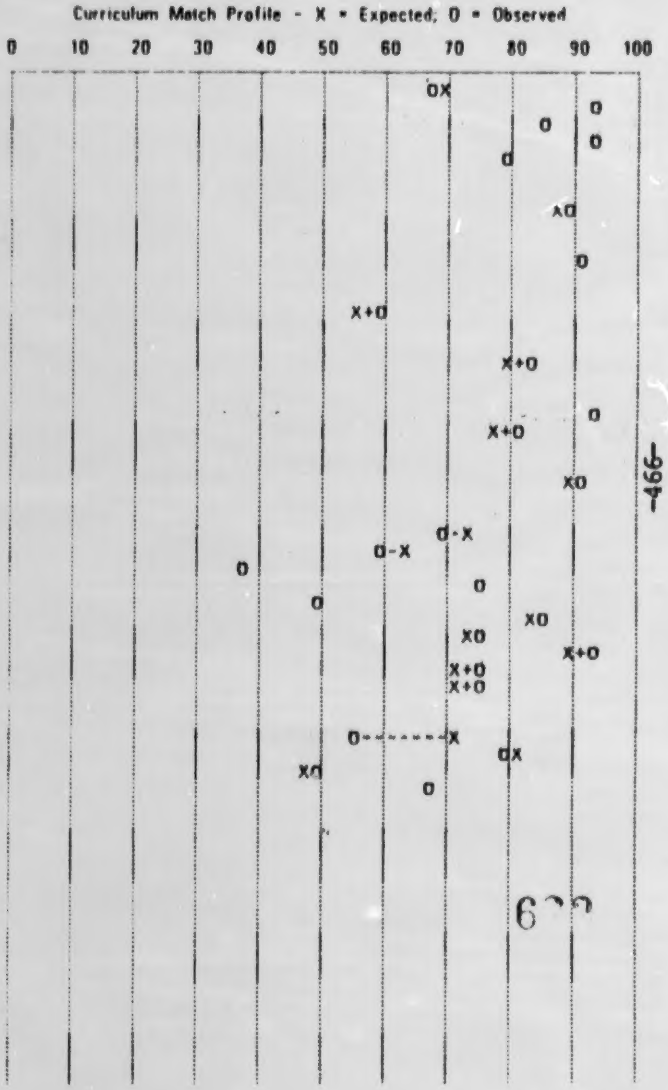
Curriculum Match Profile - X = Expected; O = Observed



GERMANY SOUTH READING 306 2,142 MAY-80 3 .1 001-3835

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 6

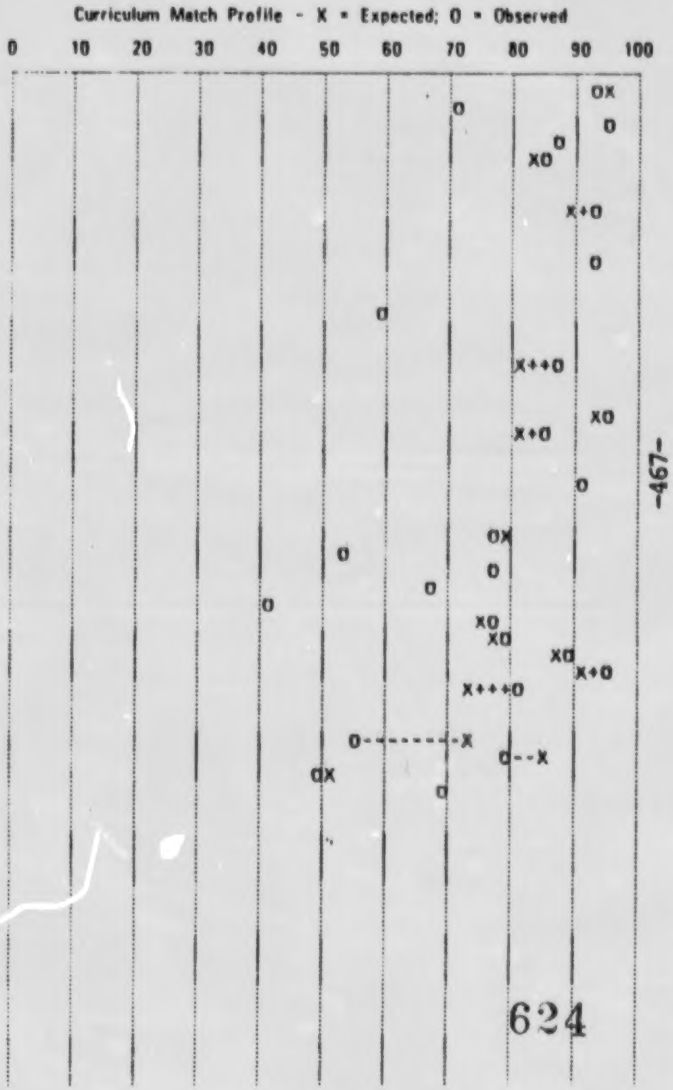
Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
05	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	539	69	68	- 1
02	PLURAL NOUNS-INFLECTIONAL ENDINGS	438	93	93	+ 0
03	PREFIXES	487	85	85	+ 0
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	437	94	94	+ 0
09	SUFFIXES	505	80	80	+ 0
	MULTIPLE WORD FORMS				
04	CONTRACTIONS	476	87	90	+ 3
	WORD RECOGNITION				
06	WORD RECOGNITION-IRREGULAR VERBS	456	91	91	+ 0
	DICTIONARY				
07	GUIDE WORDS	572	56	59	+ 3
08	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	79	84	+ 5
	WORD MEANING				
10	WORD MEANING-CONTEXTUAL MEANING	441	93	93	+ 0
17	WORD MEANING-CONTEXTUAL MEANING	510	78	82	+ 4
	LITERAL COMPREHENSION				
11	LITERAL COMPREHENSION-DETAILS	459	90	91	+ 1
	INTERPRETIVE COMPREHENSION				
13	INTERPRETIVE COMPREHENSION-MAIN IDEA	523	74	70	- 4
23	INTERPRETIVE COMP.-INFERENCES. CONCLUSIONS	554	63	60	- 3
22	INTER COMP - CAUSE AND EFFECT	615	38	38	+ 0
15	INTERPRETIVE COMPREHENSION-MAIN IDEA	518	76	76	+ 0
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	50	50	+ 0
18	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	490	84	85	+ 1
12	INTERPRETIVE COMP.-INFERENCES. CONCLUSIONS	524	74	76	+ 2
19	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	459	90	93	+ 3
14	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	534	71	75	+ 4
24	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	71	76	+ 5
	EVALUATIVE COMPREHENSION				
20	EVAL COMP - PREDICTIVE OUTCOMES	533	71	56	- 15
25	EVAL COMP - IDENTIFY AUTHORS PURPOSE	496	82	79	- 3
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	48	49	+ 1
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	544	67	68	+ 1



MEDITERRANEAN READING 306 1,074 MAY-80 4 1 006-5659

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 6

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	437	95	94	- 1
05	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	539	72	71	- 1
02	PLURAL NOUNS-INFLECTIONAL ENDINGS	438	95	95	+ 0
03	PREFIXES	487	87	88	+ 1
09	SUFFIXES	505	83	85	+ 2
	MULTIPLE WORD FORMS				
04	CONTRACTIONS	476	89	93	+ 4
	WORD RECOGNITION				
06	WORD RECOGNITION-IRREGULAR VERBS	456	93	94	+ 1
	DICTIONARY				
[illegible]	GUIDE WORDS	572	59	59	+ 0
08	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	82	88	+ 6
	WORD MEANING				
10	WORD MEANING-CONTEXTUAL MEANING	441	94	96	+ 2
17	WORD MEANING-CONTEXTUAL MEANING	510	81	85	+ 4
	LITERAL COMPREHENSION				
11	LITERAL COMPREHENSION-DETAILS	459	92	92	+ 0
	INTERPRETIVE COMPREHENSION				
15	INTERPRETIVE COMPREHENSION-MAIN IDEA	518	79	78	- 1
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	54	53	- 1
13	INTERPRETIVE COMPREHENSION-MAIN IDEA	523	78	78	+ 0
23	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	554	67	68	+ 1
22	INTER COMP - CAUSE AND EFFECT	615	41	42	+ 1
24	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	75	77	+ 2
12	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	524	78	80	+ 2
18	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	490	87	90	+ 3
19	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	459	92	96	+ 4
14	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	534	74	81	+ 7
	EVALUATIVE COMPREHENSION				
20	EVAL COMP - PREDICTIVE OUTCOMES	533	74	58	- 16
25	EVAL COMP - IDENTIFY AUTHORS PURPOSE	496	85	80	- 5
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	52	49	- 3
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	544	70	69	- 1



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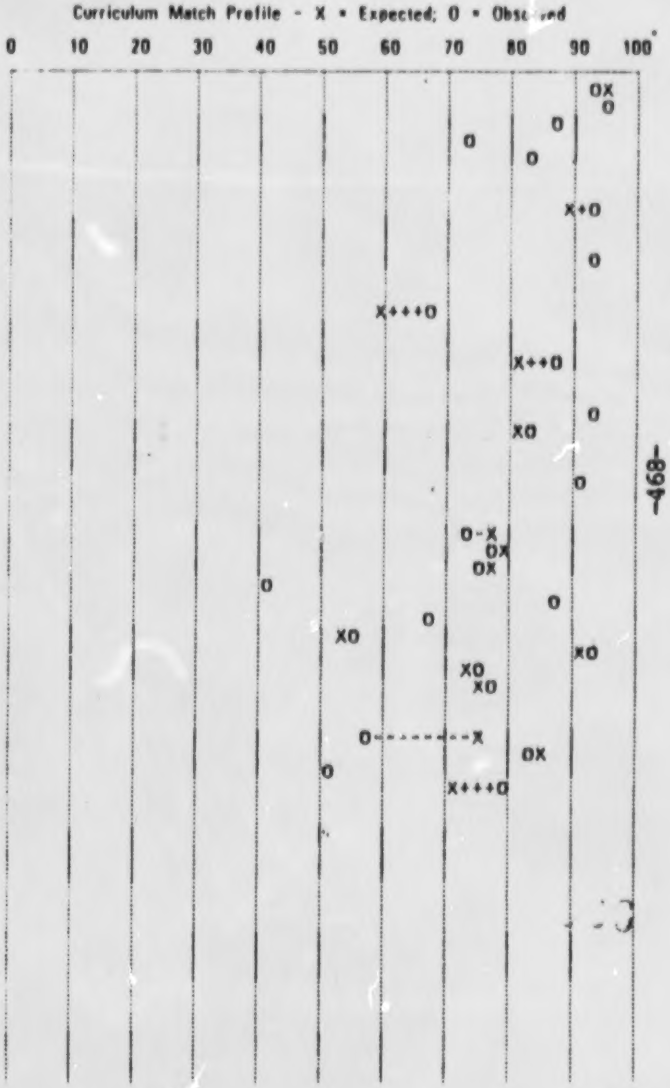
PACIFIC READING 306 1,438 MAY-80 5 1 004-6976

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 6

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
02	PLURAL NOUNS-INFLECTIONAL ENDINGS	438	95	94	- 1
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	437	95	95	+ 0
03	PREFIXES	487	87	88	+ 1
05	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	539	73	74	+ 1
09	SUFFIXES	505	83	84	+ 1
	MULTIPLE WORD FORMS				
04	CONTRACTIONS	476	89	94	+ 5
	WORD RECOGNITION				
06	WORD RECOGNITION-IRREGULAR VERBS	456	93	93	+ 0
	DICTIONARY				
07	GUIDE WORDS	572	60	68	+ 8
08	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	508	82	87	+ 5
	WORD MEANING				
10	WORD MEANING-CONTEXTUAL MEANING	441	94	94	+ 0
17	WORD MEANING-CONTEXTUAL MEANING	510	82	83	+ 1
	LITERAL COMPREHENSION				
11	LITERAL COMPREHENSION-DETAILS	459	92	92	+ 0
	INTERPRETIVE COMPREHENSION				
13	INTERPRETIVE COMPREHENSION-MAIN IDEA	523	78	74	- 4
15	INTERPRETIVE COMPREHENSION-MAIN IDEA	518	80	77	- 3
12	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	524	78	75	- 3
22	INTER COMP - CAUSE AND EFFECT	615	42	42	+ 0
18	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	490	87	88	+ 1
23	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	554	67	68	+ 1
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	505	54	55	+ 1
19	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	459	92	94	+ 2
14	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	534	74	76	+ 2
24	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	75	78	+ 3
	EVALUATIVE COMPREHENSION				
20	EVAL COMP - PREDICTIVE OUTCOMES	533	75	57	- 18
25	EVAL COMP - IDENTIFY AUTHORS PURPOSE	496	85	83	- 2
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	52	51	- 1
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	544	71	80	+ 9



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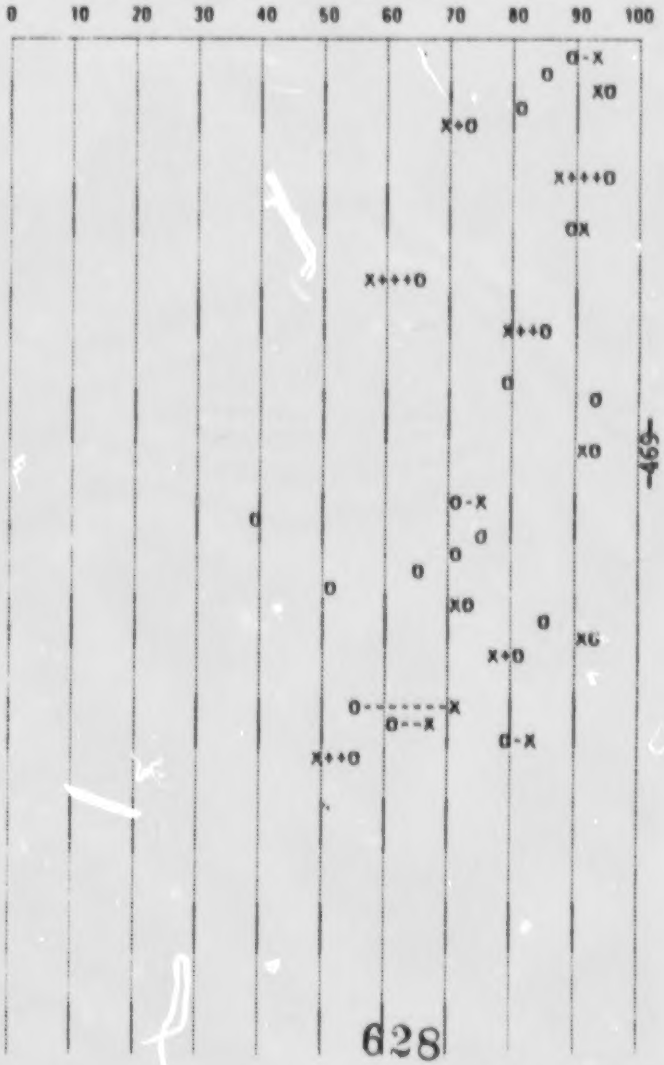
PANAMA READING 306 574 MAY-80 6 1 004-1285

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 6

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
02	PLURAL NOUNS-INFLECTIONAL ENDINGS	436	94	90	- 4
03	PREFIXES	487	86	86	+ 0
01	PLURAL NOUNS-INFLECTIONAL ENDINGS	437	94	95	+ 1
09	SUFFIXES	505	81	82	+ 1
05	POSSESSIVE NOUNS-INFLECTIONAL ENDINGS	539	70	73	+ 3
	MULTIPLE WORD FORMS				
04	CONTRACTIONS	476	88	96	+ 8
	WORD RECOGNITION				
06	WORD RECOGNITION-IRREGULAR VERBS	456	91	90	- 1
	DICTIONARY				
07	GUIDE WORDS	572	57	66	+ 9
08	STUDY SKILLS - INTERPRET MAPS AND DIAGRAMS	308	80	85	+ 5
	WORD MEANING				
17	WORD MEANING-CONTEXTUAL MEANING	510	80	80	+ 0
10	WORD MEANING-CONTEXTUAL MEANING	441	93	94	+ 1
	LITERAL COMPREHENSION				
11	LITERAL COMPREHENSION-DETAILS	459	91	93	+ 2
	INTERPRETIVE COMPREHENSION				
12	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	524	75	72	- 3
22	INTER COMP - CAUSE AND EFFECT	615	40	39	- 1
13	INTERPRETIVE COMPREHENSION-MAIN IDEA	523	76	76	+ 0
14	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	534	72	72	+ 0
23	INTERPRETIVE COMP.-INFERENCES, CONCLUSIONS	554	65	65	+ 0
26	INTERPRETIVE COMP.-IMAGERY/FIGURATIVE LANG	585	52	52	+ 0
24	INTERPRETIVE COMP.-COMPARE AND CONTRAST	533	72	73	+ 1
18	INTERPRETIVE COMP.-RELATIONSHIP OF EVENTS	490	85	86	+ 1
19	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	459	91	94	+ 3
15	INTERPRETIVE COMPREHENSION-MAIN IDEA	518	77	81	+ 4
	EVALUATIVE COMPREHENSION				
20	EVAL COMP - PREDICTIVE OUTCOMES	533	72	55	- 17
16	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	544	68	62	- 6
25	EVAL COMP - IDENTIFY AUTHORS PURPOSE	496	83	80	- 3
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	590	50	55	+ 5

Curriculum Match Profile - X = Expected; O = Observed



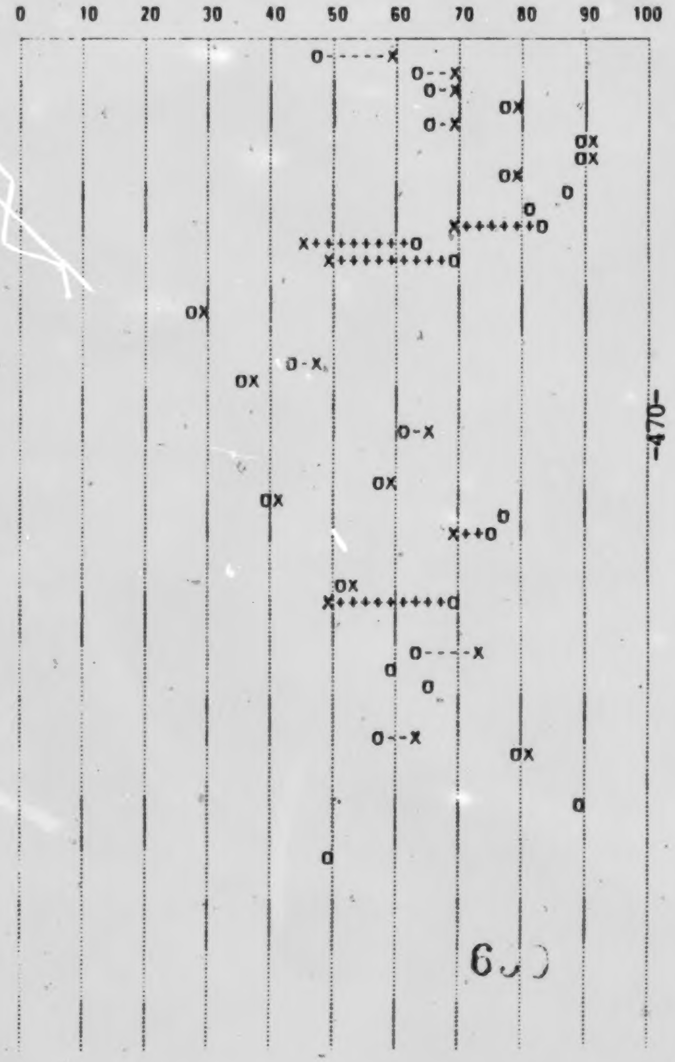
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

ATLANTIC MATHEMATICS 305 1,225 MAY-80 1 1 001-4416

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 5

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
23	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	492	60	48	- 12
22	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	469	70	63	- 7
12	DIVIDE DECIMAL BY WHOLE NUMBER	467	70	65	- 5
07	MULT 2-3 DGTS BY 2 DGTS WITHOUT REGROUP	439	80	77	- 3
06	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	472	69	66	- 3
10	ADD MULTIDIGIT INTGRS WITH REGROUP	391	91	89	- 2
21	MULT WHOLE NUMBER BY 1-PLACE DECIMAL	394	91	89	- 2
11	DIVIDE DECIMAL BY WHOLE NUMBER	441	79	78	- 1
24	SUCCESSIVE OPERATIONS-MULTIPLY-INTEGERS	413	87	87	+ 0
20	SUBTRACT DECIMALS-PTS ALIGNED-SAME DENOM	436	81	82	+ 1
08	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	469	70	83	+ 13
01	COMPUTE FACTORS OF A NUMBER	526	45	63	+ 18
02	COMPUTE GREATEST COMMON FACTOR	514	50	70	+ 20
	APPLY-ARITHMETIC PROPERTIES				
03	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	29	28	- 1
	COMPREHENSION-ARITHMETIC PROPERTIES				
04	COMPR-SIZE/MAGNITUDE OF NUMBERS	520	48	43	- 5
05	COMPR-SIZE/MAGNITUDE OF NUMBERS	543	38	36	- 2
	COMPR-PROBABILITY & STATISTICS				
09	COMPR-PROBABILITY & STATISTICS-AVERAGES	479	66	61	- 5
	ARITHMETIC APPLICATIONS				
14	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	494	60	58	- 2
13	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	535	41	40	- 1
28	APPLY ADDITION-INTEGERS	447	78	77	- 1
15	APPLY DIVISION-INTEGERS	470	69	75	+ 6
	MEASUREMENT APPLICATIONS				
16	APPLY-MONEY-SUBTRACTING	506	54	51	- 3
29	APPLY ENGLISH MEASURE-PLANE-SQUARE	515	50	70	+ 20
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
17	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	460	73	64	- 9
19	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	493	60	59	- 1
18	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	480	65	65	+ 0
	COMPREHEND GEOMETRY				
25	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	484	63	57	- 6
27	COMPREHEND RELATIONS BETWEEN GEO FIGURES	436	81	80	- 1
	MEASUREMENT COMPUTATION				
26	PLANE METRIC SQUARE MEASUREMENT	398	90	90	+ 0
	COMPUTER KNOWLEDGE				
30	COMPUTER KNOWLEDGE	515	50	49	- 1

Curriculum Match Profile - X = Expected; O = Observed



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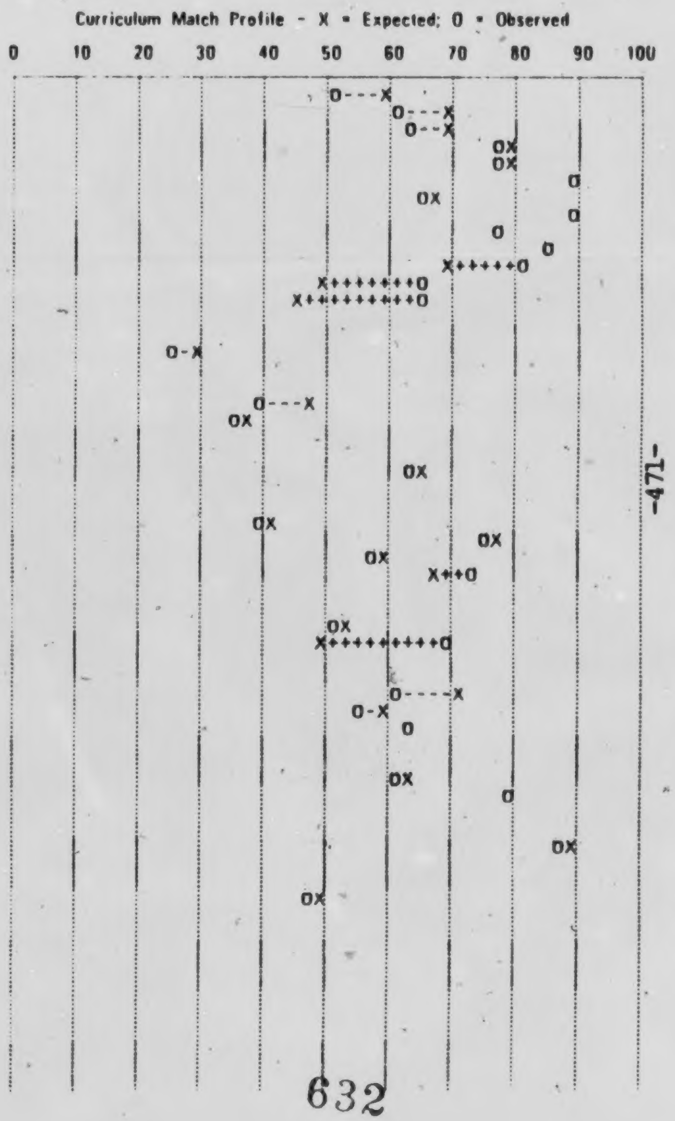
GERMANY NORTH MATHEMATICS 305 3,461 MAY-80 2 1 003-3381

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 5

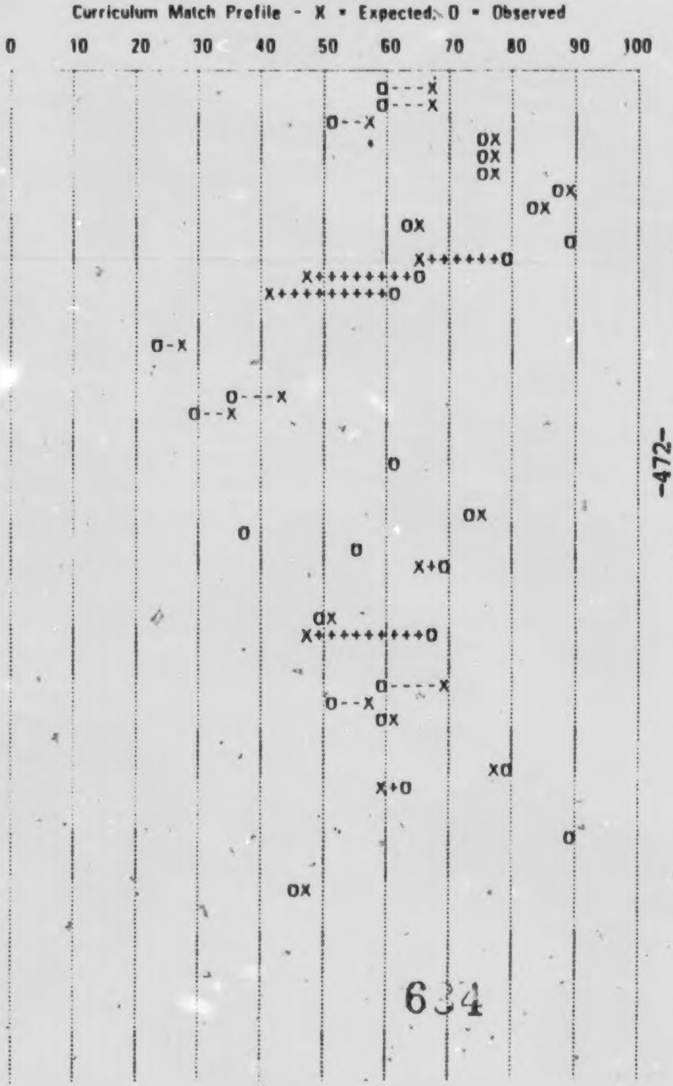
Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
23	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	492	59	51	- 8
22	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	469	69	62	- 7
12	DIVIDE DECIMAL BY WHOLE NUMBER	467	69	64	- 5
07	MULT 2-3 DGTS BY 2 DGTS WITHOUT REGROUP	439	79	77	- 2
20	SUBTRACT DECIMALS-PTS ALIGNED-SAME DENOM	436	80	78	- 2
21	MULT WHOLE NUMBER BY 1-PLACE DECIMAL	394	90	89	- 1
06	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	472	67	66	- 1
10	ADD MULTIDIGIT INTGRS WITH REGROUP	391	90	89	- 1
11	DIVIDE DECIMAL BY WHOLE NUMBER	441	78	78	+ 0
24	SUCCESSIVE OPERATIONS-MULTIPLY-INTEGERS	413	86	86	+ 0
08	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	469	69	82	+ 13
02	COMPUTE GREATEST COMMON FACTOR	514	50	66	+ 16
01	COMPUTE FACTORS OF A NUMBER	526	45	66	+ 21
	APPLY-ARITHMETIC PROPERTIES				
03	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	29	26	- 3
	COMPREHENSION-ARITHMETIC PROPERTIES				
04	COMPR-SIZE/MAGNITUDE OF NUMBERS	520	47	39	- 8
05	COMPR-SIZE/MAGNITUDE OF NUMBERS	543	38	35	- 3
	COMPR-PROBABILITY & STATISTICS				
09	COMPR-PROBABILITY & STATISTICS-AVERAGES	479	65	64	- 1
	ARITHMETIC APPLICATIONS				
13	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	535	41	39	- 2
28	APPLY ADDITION-INTEGERS	447	77	75	- 2
14	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	494	59	58	- 1
15	APPLY DIVISION-INTEGERS	470	68	74	+ 6
	MEASUREMENT APPLICATIONS				
16	APPLY-MONEY-SUBTRACTING	506	53	52	- 1
29	APPLY ENGLISH MEASURE-PLANE-SQUARE	515	50	69	+ 19
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
17	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	460	72	61	- 11
19	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	493	59	56	- 3
18	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	480	64	63	- 1
	COMPREHEND GEOMETRY				
25	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	484	63	62	- 1
27	COMPREHEND RELATIONS BETWEEN GEO FIGURES	436	80	79	- 1
	MEASUREMENT COMPUTATION				
26	PLANE METRIC SQUARE MEASUREMENT	396	90	88	- 2
	COMPUTER KNOWLEDGE				
30	COMPUTER KNOWLEDGE	515	49	47	- 2



GERMANY SOUTH MATHEMATICS 305 537 MAY-80 3 1 001-3831

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 5

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
22	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	469	67	59	- 8
12	DIVIDE DECIMAL BY WHOLE NUMBER	467	67	60	- 7
23	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	492	57	51	- 6
07	MULT 2-3 DGTS BY 2 DGTS WITHOUT REGROUP	439	78	75	- 3
20	SUBTRACT DECIMALS-PTS ALIGNED-SAME DENOM	436	78	76	- 2
11	DIVIDE DECIMAL BY WHOLE NUMBER	441	77	75	- 2
10	ADD MULTIDIGIT INTGRS WITH REGROUP	391	90	88	- 2
24	SUCCESSIVE OPERATIONS-MULTIPLY-INTEGERS	413	85	83	- 2
06	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	472	65	64	- 1
21	MULT WHOLE NUMBER BY 1-PLACE DECIMAL	394	89	89	+ 0
08	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	469	66	79	+ 13
02	COMPUTE GREATEST COMMON FACTOR	514	47	66	+ 19
01	COMPUTE FACTORS OF A NUMBER	526	42	62	+ 20
	APPLY ARITHMETIC PROPERTIES				
03	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	27	24	- 3
	COMPREHENSION-ARITHMETIC PROPERTIES				
04	COMPR-SIZE/MAGNITUDE OF NUMBERS	520	44	35	- 9
05	COMPR-SIZE/MAGNITUDE OF NUMBERS	543	35	29	- 6
	COMPR-PROBABILITY & STATISTICS				
09	COMPR-PROBABILITY & STATISTICS-AVERAGES	479	62	61	- 1
	ARITHMETIC APPLICATIONS				
28	APPLY ADDITION INTEGERS	447	75	73	- 2
13	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	535	38	37	- 1
14	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	494	56	55	- 1
15	APPLY DIVISION-INTEGERS	470	66	70	+ 4
	MEASUREMENT APPLICATIONS				
16	APPLY-MONEY-SUBTRACTING	506	51	49	- 2
29	APPLY ENGLISH MEASURE-PLANE-SQUARE	515	47	68	+ 21
	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)				
17	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	460	70	59	- 11
19	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	493	57	52	- 5
18	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	480	62	60	- 2
	COMPREHEND GEOMETRY				
27	COMPREHEND RELATIONS BETWEEN GEO FIGURES	436	78	79	+ 1
25	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	484	60	63	+ 3
	MEASUREMENT COMPUTATION				
26	PLANE METRIC SQUARE MEASUREMENT	396	89	89	+ 0
	COMPUTER KNOWLEDGE				
30	COMPUTER KNOWLEDGE	515	47	46	- 1



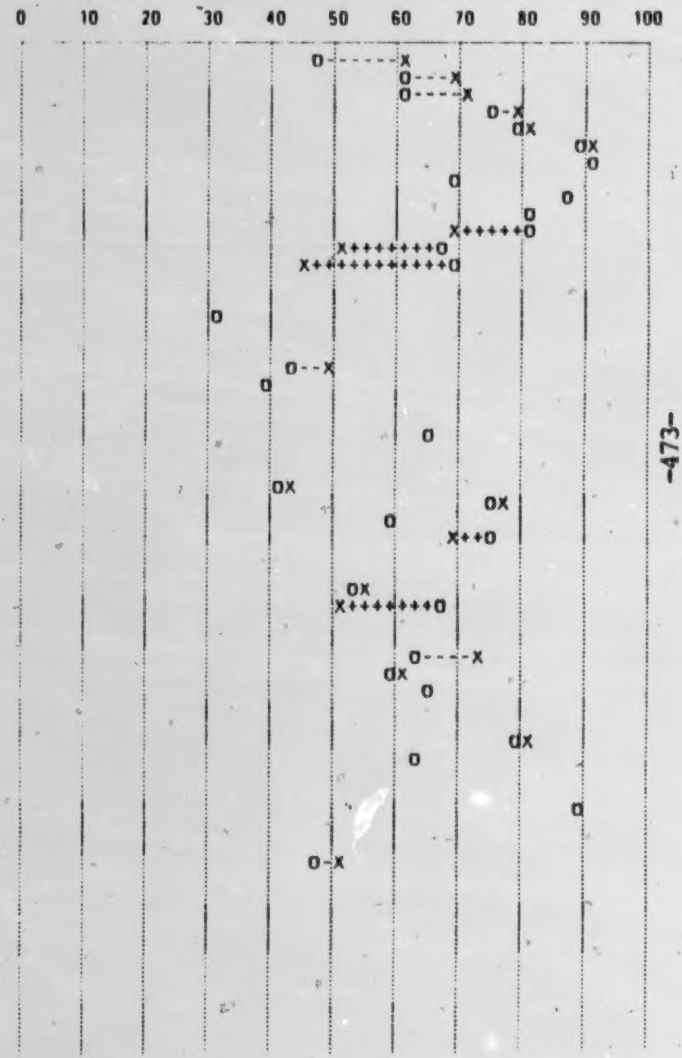
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

MEDITERRANEAN MATHEMATICS 305 1,114 MAY-80 4 1 006-5626

BASIC SKILLS ASSESSMENT
Curriculum Match Report · Grade 5

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
23	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	492	61	48	- 13
22	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	469	70	61	- 9
12	DIVIDE DECIMAL BY WHOLE NUMBER	467	71	62	- 9
11	DIVIDE DECIMAL BY WHOLE NUMBER	441	80	76	- 4
07	MULT 2-3 DGTS BY 2 DGTS WITHOUT REGROUP	439	81	79	- 2
21	MULT WHOLE NUMBER BY 1-PLACE DECIMAL	394	91	89	- 2
10	ADD MULTIDIGIT INTGRS WITH REGROUP	391	91	91	+ 0
06	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	472	69	69	+ 0
24	SUCCESSIVE OPERATIONS-MULTIPLY-INTEGERS	413	87	87	+ 0
20	SUBTRACT DECIMALS-PTS ALIGNED-SAME DENOM	436	81	82	+ 1
08	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	469	70	82	+ 12
02	COMPUTE GREATEST COMMON FACTOR	514	52	68	+ 16
01	COMPUTE FACTORS OF A NUMBER	526	46	69	+ 23
	APPLY-ARITHMETIC PROPERTIES				
03	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	31	31	+ 0
	COMPREHENSION-ARITHMETIC PROPERTIES				
04	COMPR-SIZE/MAGNITUDE OF NUMBERS	520	49	43	- 6
05	COMPR-SIZE/MAGNITUDE OF NUMBERS	543	39	39	+ 0
	COMPR-PROBABILITY & STATISTICS				
09	COMPR-PROBABILITY & STATISTICS-AVERAGES	479	66	66	+ 0
	ARITHMETIC APPLICAT[illegible]				
13	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	535	43	41	- 2
28	APPLY ADDITION-INTEGERS	447	78	76	- 2
14	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	494	60	60	+ 0
15	APPLY DIVISION-INTEGERS	470	70	75	+ 5
	MEASUREMENT APPLICATIONS				
16	APPLY-MONEY-SUBTRACTING	506	55	53	- 2
29	APPLY ENGLISH MEASURE-PLANE-SQUARE	515	51	67	+ 16
	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)				
17	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	460	74	63	- 11
19	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	493	61	60	- 1
18	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	480	66	65	- 1
	COMPREHEND GEOMETRY				
27	COMPREHEND RELATIONS BETWEEN GEO FIGURES	436	81	80	- 1
25	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	484	64	64	+ 0
	MEASUREMENT COMPUTATION				
26	PLANE METRIC SQUARE MEASUREMENT	396	90	90	+ 0
	COMPUTER KNOWLEDGE				
30	COMPUTER KNOWLEDGE	515	51	48	- 3

Curriculum Match Profile - X = Expected; O = Observed



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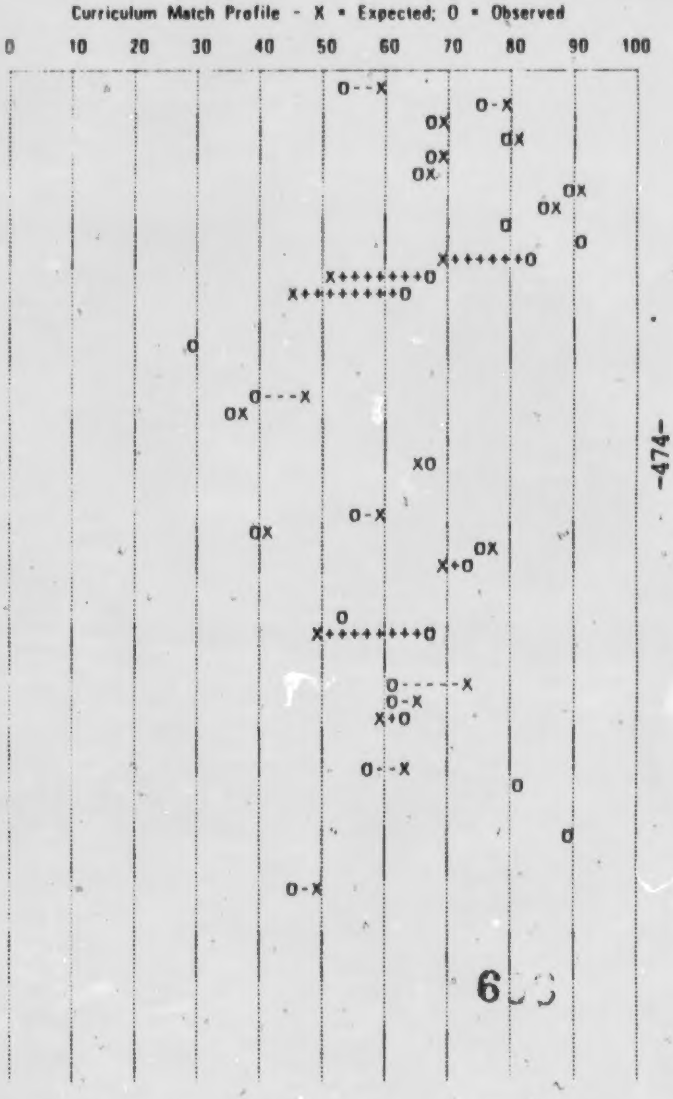
PACIFIC MATHEMATICS 305 1,726 MAY-80 5 1 001-9746

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 5

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
23	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	492	60	53	- 7
07	MULT 2-3 DGTS BY 2 DGTS WITHOUT REGROUP	439	80	75	- 5
12	DIVIDE DECIMAL BY WHOLE NUMBER	467	70	67	- 3
20	SUBTRACT DECIMALS-PTS ALIGNED-SAME DENOM	436	81	79	- 2
22	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	469	70	68	- 2
06	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	472	68	66	- 2
21	MULT WHOLE NUMBER BY 1-PLACE DECIMAL	394	91	90	- 1
24	SUCCESSIVE OPERATIONS-MULTIPLY-INTEGERS	413	87	86	- 1
11	DIVIDE DECIMAL BY WHOLE NUMBER	441	79	79	+ 0
10	ADD MULTIDIGIT INTGRS WITH REGROUP	391	91	92	+ 1
08	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	469	70	83	+ 13
02	COMPUTE GREATEST COMMON FACTOR	514	51	67	+ 16
01	COMPUTE FACTORS OF A NUMBER	526	45	63	+ 18
	APPLY-ARITHMETIC PROPERTIES				
03	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	30	29	- 1
	COMPREHENSION-ARITHMETIC PROPERTIES				
04	COMPR-SIZE/MAGNITUDE OF NUMBERS	520	48	39	- 9
05	COMPR-SIZE/MAGNITUDE OF NUMBERS	543	38	35	- 3
	COMPR-PROBABILITY & STATISTICS				
09	COMPR-PROBABILITY & STATISTICS-AVERAGES	479	66	67	+ 1
	ARITHMETIC APPLICATIONS				
14	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	494	60	56	- 4
13	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	535	42	40	- 2
28	APPLY ADDITION-INTEGERS	447	77	76	- 1
15	APPLY DIVISION-INTEGERS	470	69	74	+ 5
	MEASUREMENT APPLICATIONS				
16	APPLY-MONEY-SUBTRACTING	506	54	54	+ 0
29	APPLY ENGLISH MEASURE-PLANE-SQUARE	515	50	68	+ 18
	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)				
17	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	460	73	61	- 12
18	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	480	65	62	- 3
19	APPLY-FUNCTIONS, GRAPHS(CHARTS/TABLES)	493	60	63	+ 3
	COMPREHEND GEOMETRY				
25	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	484	63	58	- 5
27	COMPREHEND RELATIONS BETWEEN GEO FIGURES	436	81	81	+ 0
	MEASUREMENT COMPUTATION				
26	PLANE METRIC SQUARE MEASUREMENT	398	90	89	- 1
	COMPUTER KNOWLEDGE				
30	COMPUTER KNOWLEDGE	515	50	45	- 5



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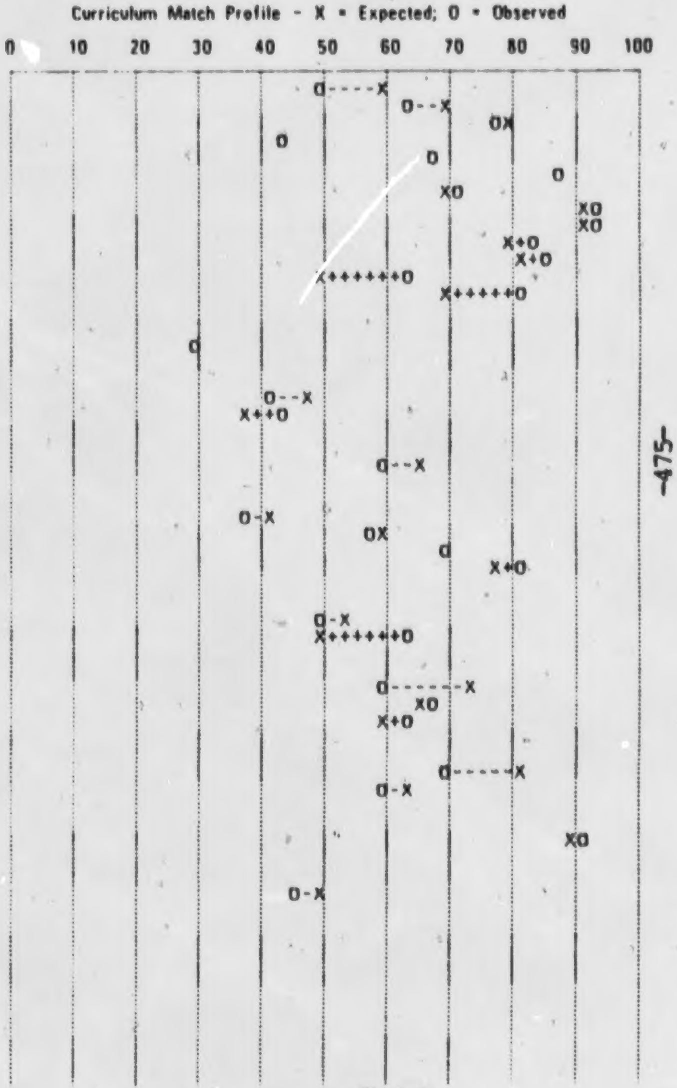
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

PANAMA MATHEMATICS 305 660 MAY-80 6 1 004-1267

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 5

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	ARITHMETIC COMPUTATION				
23	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	492	59	49	- 10
12	DIVIDE DECIMAL BY WHOLE NUMBER	467	70	64	- 6
07	MULT 2-3 DGTS BY 2 DGTS WITHOUT REGROUP	439	80	78	- 2
01	COMPUTE FACTORS OF A NUMBER	526	44	43	- 1
06	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	472	68	68	+ 0
24	SUCCESSIVE OPERATIONS-MULTIPLY-INTEGERS	413	87	87	+ 0
22	DIVIDE MULTI-DIGIT BY 2 DIGIT-NO REMAINDER	469	69	71	+ 2
10	ADD MULTIDIGIT INTGRS WITH REGROUP	391	91	93	+ 2
21	MULT WHOLE NUMBER BY 1-PLACE DECIMAL	394	91	93	+ 2
11	DIVIDE DECIMAL BY WHOLE NUMBER	441	79	83	+ 4
20	SUBTRACT DECIMALS-PTS ALIGNED-SAME DENOM	436	81	85	+ 4
02	COMPUTE GREATEST COMMON FACTOR	514	50	63	+ 13
08	MULT INTEGERS W/RGP-2-3 DIGITS X 2-DIGITS	469	69	82	+ 13
	APPLY-ARITHMETIC PROPERTIES				
03	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	564	29	29	+ 0
	COMPREHENSION-ARITHMETIC PROPERTIES				
04	COMPR-SIZE/MAGNITUDE OF NUMBERS	520	47	41	- 6
05	COMPR-SIZE/MAGNITUDE OF NUMBERS	543	37	44	+ 7
	COMPR-PROBABILITY & STATISTICS				
09	COMPR-PROBABILITY & STATISTICS-AVERAGES	479	65	59	- 6
	ARITHMETIC APPLICATIONS				
13	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	535	41	37	- 4
14	APPLY CONVERSIONS-IMPROPER/MIXED FRACTIONS	494	59	58	- 1
15	APPLY DIVISION-INTEGERS	470	69	70	+ 1
28	APPLY ADDITION-INTEGERS	447	77	81	+ 4
	MEASUREMENT APPLICATIONS				
16	APPLY-MONEY-SUBTRACTING	506	53	50	- 3
29	APPLY ENGLISH MEASURE-PLANE-SQUARE	515	49	63	+ 14
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
17	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	460	73	59	- 14
18	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	480	65	67	+ 2
19	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	493	59	64	+ 5
	COMPREHEND GEOMETRY				
27	COMPREHEND RELATIONS BETWEEN GEO FIGURES	436	81	70	- 11
25	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	484	63	60	- 3
	MEASUREMENT COMPUTATION				
26	PLANE METRIC SQUARE MEASUREMENT	398	90	91	+ 1
	COMPUTER KNOWLEDGE				
30	COMPUTER KNOWLEDGE	515	49	46	- 3



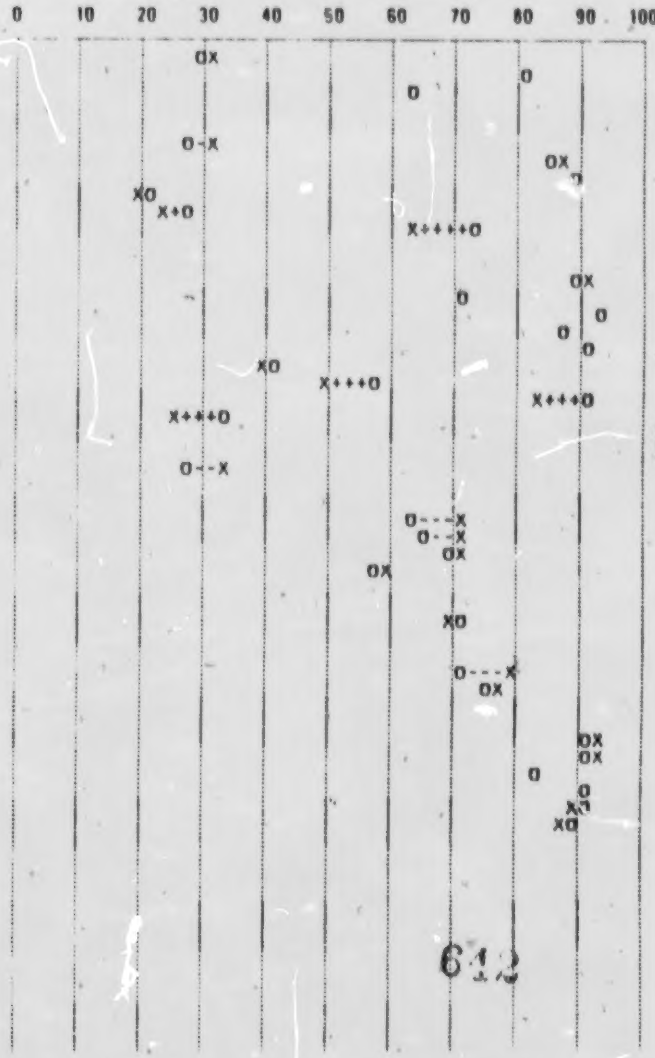
DEPARTMENT OF DEFENSE
DEPENDENTS SCHOOLS

ATLANTIC   LANGUAGE ARTS   304   1,311   MAY-80   1   1   001-4355

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
02	CAPITALIZATION-PROPER NOUNS	556	31	29	- 2
03	CAPITALIZATION-PRONOUN "I"	479	82	81	- 1
01	CAPITALIZATION	483	63	63	+ 0
	PUNCTUATION				
05	PUNCTUATION-USE OF COMMAS	556	31	28	- 3
06	PUNCTUATION-USE OF APOSTROPHES	409	87	85	- 2
07	PUNCTUATION-USE OF APOSTROPHES	390	90	90	+ 0
09	PUNCTUATION-USE OF APOSTROPHES	592	19	21	+ 2
04	PUNCTUATION-USE OF COMMAS	577	23	28	+ 5
08	PUNCTUATION-USE OF APOSTROPHES	483	63	73	+ 10
	USAGE				
10	USAGE - VERB TENSE	387	91	90	- 1
13	USAGE - SUBJECT VERB AGREEMENT	461	72	71	- 1
12	USAGE - VERB TENSE	368	94	94	+ 0
17	USAGE-PRONOUN CASE	406	88	88	+ 0
11	USAGE - VERB TENSE	389	91	92	+ 1
18	USAGE-COMPARATIVES AND SUPERLATIVES	536	39	41	+ 2
14	USAGE - SUBJECT VERB AGREEMENT	514	49	57	+ 8
16	USAGE - DOUBLE NEGATIVES	420	84	92	+ 8
15	USAGE - SUBJECT VERB AGREEMENT	571	25	34	+ 9
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	33	28	- 5
	SENTENCE STRUCTURE				
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	72	64	- 8
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	459	72	66	- 6
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	462	71	70	- 1
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	493	59	58	- 1
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
24	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	70	72	+ 2
	BUILDING AND CHANGING SENTENCES				
25	BUILD AND CHANGE SENTENCES-COMPOUNDING	438	79	72	- 7
26	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	77	76	- 1
	SPELLING				
28	SPELL-WORD W/ SHORT VOWEL DIGRAPH	360	94	91	- 3
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	371	93	91	- 2
29	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	422	84	84	+ 0
27	SPELL-WORD W/ SHORT VOWEL DIGRAPH	385	91	91	+ 0
30	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	390	90	91	+ 1
32	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	403	88	89	+ 1

Curriculum Match Profile - X = Expected; O = Observed



DEPARTMENT OF DEFENSE

GERMANY NORTH   LANGUAGE ARTS   304   3,987   MAY-80   2   1   003-3366

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy	Curriculum Match Profile - X = Expected; O = Observed
	CAPITALIZATION					
01	CAPITALIZATION	483	63	62	- 1	OX
02	CAPITALIZATION-PROPER NOUNS	556	31	31	+ 0	O
03	CAPITALIZATION-PRONOUN "I"	429	82	82	+ 0	O
	PUNCTUATION					
09	PUNCTUATION-USE OF APOSTROPHES	592	19	16	- 3	O-X
06	PUNCTUATION-USE OF APOSTROPHES	409	87	87	+ 0	O
05	PUNCTUATION-USE OF COMMAS	556	31	31	+ 0	O
07	PUNCTUATION-USE OF APOSTROPHES	390	90	92	+ 2	XO
04	PUNCTUATION-USE OF COMMAS	577	24	30	+ 6	X++O
08	PUNCTUATION-USE OF APOSTROPHES	483	63	74	+ 11	X++++O
	USAGE					
12	USAGE - VERB TENSE	368	94	93	- 1	O
17	USAGE-PRONOUN CASE	406	88	87	- 1	O
18	USAGE-COMPARATIVES AND SUPERLATIVES	536	40	39	- 1	O
11	USAGE - VERB TENSE	389	91	91	+ 0	O
10	USAGE - VERB TENSE	387	91	92	+ 1	O
13	USAGE - SUBJECT VERB AGREEMENT	461	72	73	+ 1	XO
15	USAGE - SUBJECT VERB AGREEMENT	571	26	33	+ 7	X+++O
16	USAGE - DOUBLE NEGATIVES	420	84	91	+ 7	X+++O
14	USAGE - SUBJECT VERB AGREEMENT	514	49	59	+ 10	X++++O
	SENTENCE PATTERNS					
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	34	26	- 8	O---X
	SENTENCE STRUCTURE					
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	459	72	63	- 9	O---X
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	72	69	- 3	OX
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	462	71	69	- 2	OX
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	493	59	60	+ 1	O
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE					
24	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	70	72	+ 2	XO
	BUILDING AND CHANGING SENTENCES					
25	BUILD AND CHANGE SENTENCES-COMPOUNDING	438	79	71	- 8	O---X
26	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	77	78	+ 1	O
	SPELLING					
28	SPELL-WORD W/ SHORT VOWEL DIGRAPH	360	94	91	- 3	OX
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	371	93	90	- 3	O-X
27	SPELL-WORD W/ SHORT VOWEL DIGRAPH	385	91	90	- 1	OX
29	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	422	84	84	+ 0	O
30	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	390	90	91	+ 1	XO
32	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	403	88	90	+ 2	XO

Profile scale: 0 10 20 30 40 50 60 70 80 90 100

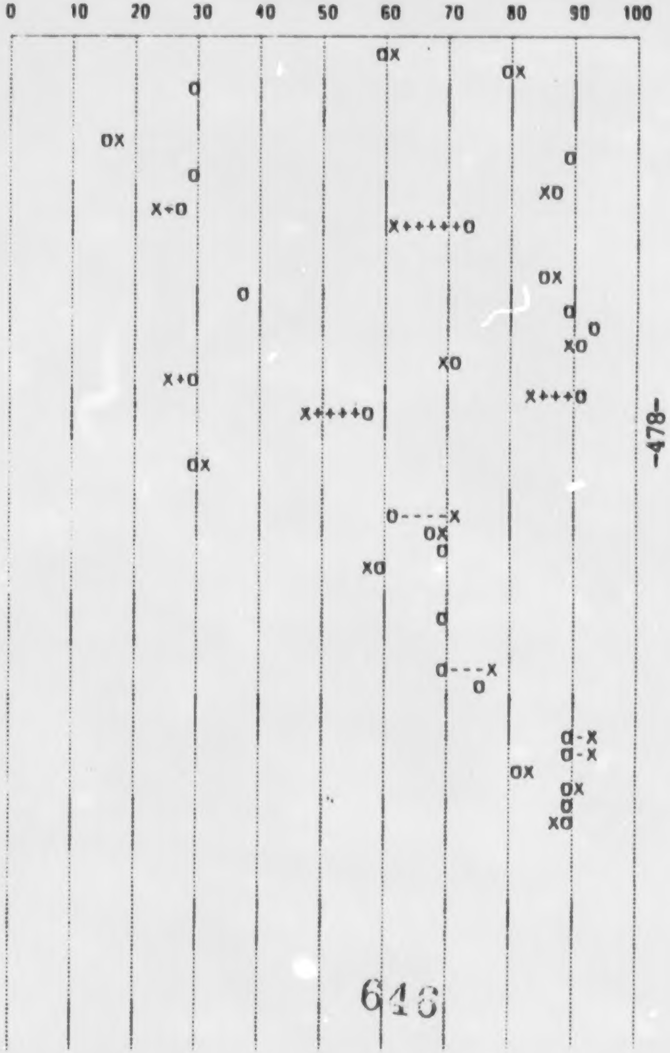
GERMANY SOUTH LANGUAGE ARTS 304 2,809 MAY-80 3 1 001-3825.

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
01	CAPITALIZATION	483	61	60	- 1
03	CAPITALIZATION-PRONOUN "I"	429	81	80	- 1
02	CAPITALIZATION-PROPER NOUNS	556	30	30	+ 0
	PUNCTUATION				
09	PUNCTUATION-USE OF APOSTROPHES	592	18	16	- 2
07	PUNCTUATION-USE OF APOSTROPHES	390	90	90	+ 0
05	PUNCTUATION-USE OF COMMAS	556	30	30	+ 0
06	PUNCTUATION-USE OF APOSTROPHES	409	86	87	+ 1
04	PUNCTUATION-USE OF COMMAS	577	23	27	+ 4
08	PUNCTUATION-USE OF APOSTROPHES	483	62	73	+ 11
	USAGE				
17	USAGE-PRONOUN CASE	406	87	86	- 1
18	USAGE-COMPARATIVES AND SUPERLATIVES	536	38	37	- 1
11	USAGE - VERB TENSE	389	90	90	+ 0
12	USAGE - VERB TENSE	368	93	93	+ 0
10	USAGE - VERB TENSE	387	90	91	+ 1
13	USAGE - SUBJECT VERB AGREEMENT	461	70	72	+ 2
15	USAGE - SUBJECT VERB AGREEMENT	571	25	30	+ 5
16	USAGE - DOUBLE NEGATIVES	420	83	91	+ 8
14	USAGE - SUBJECT VERB AGREEMENT	514	48	58	+ 10
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	32	30	- 2
	SENTENCE STRUCTURE				
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	459	71	62	- 9
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	462	70	67	- 3
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	70	69	- 1
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	493	57	59	+ 2
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
24	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	69	70	+ 1
	BUILDING AND CHANGING SENTENCES				
25	BUILD AND CHANGE SENTENCES-COMPOUNDING	438	78	69	- 9
26	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	76	75	- 1
	SPELLING				
28	SPELL-WORD W/ SHORT VOWEL DIGRAPH	360	94	90	- 4
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	371	93	89	- 4
29	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	422	83	81	- 2
27	SPELL-WORD W/ SHORT VOWEL DIGRAPH	385	91	89	- 2
30	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	390	90	89	- 1
32	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	403	87	90	+ 3

Curriculum Match Profile - X = Expected; O = Observed



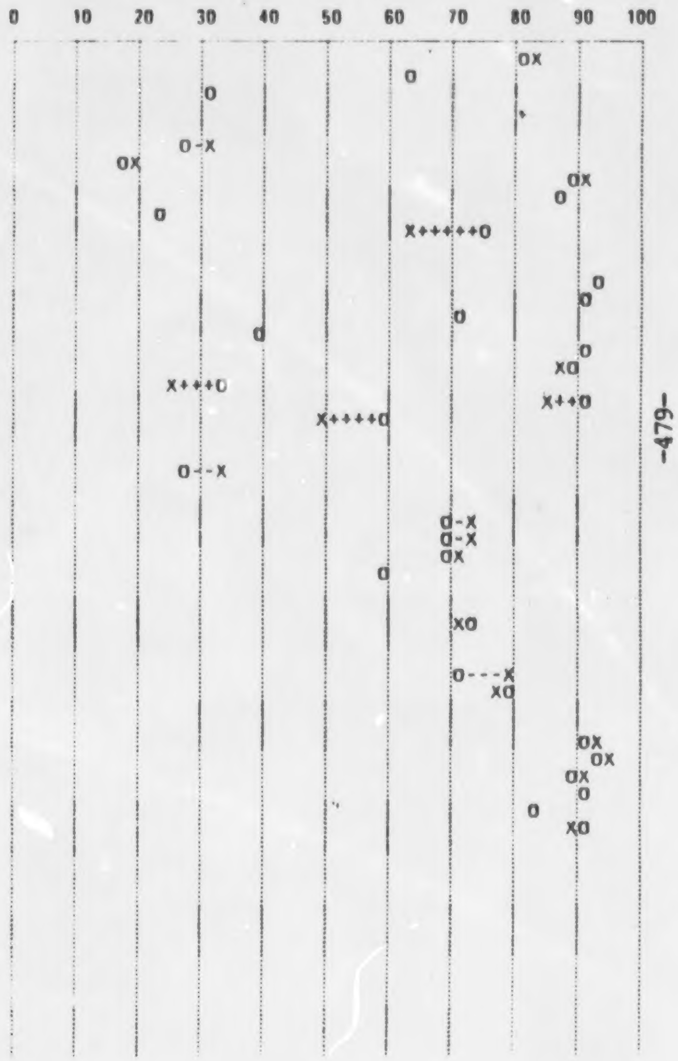
MEDITERRANEAN LANGUAGE ARTS 304 1,266 MAY-80 4 1 006-5482

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
03	CAPITALIZATION-PRONOUN "I"	429	83	81	- 2
01	CAPITALIZATION	483	64	63	- 1
02	CAPITALIZATION-PROPER NOUNS	556	31	31	+ 0
	PUNCTUATION				
05	PUNCTUATION-USE OF COMMAS	556	31	28	- 3
09	PUNCTUATION-USE OF APOSTROPHES	592	19	17	- 2
07	PUNCTUATION-USE OF APOSTROPHES	390	91	90	- 1
06	PUNCTUATION-USE OF APOSTROPHES	409	88	87	- 1
04	PUNCTUATION-USE OF COMMAS	577	23	24	+ 1
08	PUNCTUATION-USE OF APOSTROPHES	483	64	75	+ 11
	USAGE				
12	USAGE - VERB TENSE	368	94	93	- 1
10	USAGE - VERB TENSE	387	91	91	+ 0
13	USAGE - SUBJECT VERB AGREEMENT	461	72	72	+ 0
18	USAGE-COMPARATIVES AND SUPERLATIVES	536	40	40	+ 0
11	USAGE - VERB TENSE	389	91	92	+ 1
17	USAGE-PRONOUN CASE	406	88	90	+ 2
15	USAGE - SUBJECT VERB AGREEMENT	571	26	33	+ 7
16	USAGE - DOUBLE NEGATIVES	420	85	92	+ 7
14	USAGE - SUBJECT VERB AGREEMENT	514	50	60	+ 10
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	34	27	- 7
	SENTENCE STRUCTURE				
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	459	73	69	- 4
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	73	70	- 3
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	462	72	70	- 2
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	493	60	59	- 1
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
24	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	71	73	+ 2
	BUILDING AND CHANGING SENTENCES				
25	BUILD AND CHANGE SENTENCES-COMPOUNDING	438	80	72	- 8
26	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	78	79	+ 1
	SPELLING				
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	371	94	91	- 3
28	SPELL-WORD W/ SHORT VOWEL DIGRAPH	360	95	93	- 2
27	SPELL-WORD W/ SHORT VOWEL DIGRAPH	385	92	90	- 2
30	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	390	91	91	+ 0
29	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	422	84	84	+ 0
32	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	403	89	91	+ 2

Curriculum Match Profile - X = Expected; O = Observed



DEPARTMENT OF DEFENSE
DEPENDENTS SCHOOLS

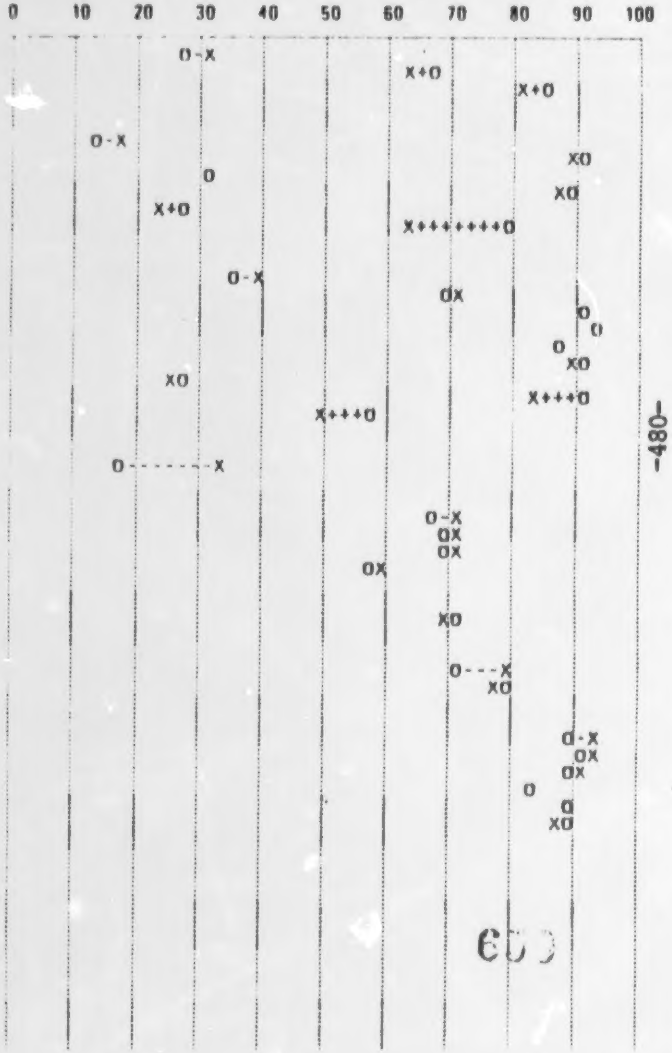
PACIFIC LANGUAGE ARTS 304 1,820 MAY-80 5 1 OC6-3011

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 4

Item No	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
02	CAPITALIZATION-PROPER NOUNS	556	31	27	- 4
01	CAPITALIZATION	483	63	67	+ 4
03	CAPITALIZATION-PRONOUN "I"	429	82	86	+ 4
	PUNCTUATION				
09	PUNCTUATION-USE OF APOSTROPHES	592	18	14	- 4
07	PUNCTUATION-USE OF APOSTROPHES	390	90	91	+ 1
05	PUNCTUATION-USE OF COMMAS	556	31	32	+ 1
06	PUNCTUATION-USE OF APOSTROPHES	409	87	89	+ 2
04	PUNCTUATION-USE OF COMMAS	577	23	27	+ 4
08	PUNCTUATION-USE OF APOSTROPHES	483	63	79	+ 16
	USAGE				
18	USAGE-COMPARATIVES AND SUPERLATIVES	536	39	36	- 3
13	USAGE - SUBJECT VERB AGREEMENT	461	71	70	- 1
10	USAGE - VERB TENSE	387	91	91	+ 0
12	USAGE - VERB TENSE	368	94	94	+ 0
17	USAGE-PRONOUN CASE	406	87	88	+ 1
11	USAGE - VERB TENSE	389	90	91	+ 1
15	USAGE - SUBJECT VERB AGREEMENT	571	25	28	+ 3
16	USAGE - DOUBLE NEGATIVES	420	84	92	+ 8
14	USAGE - SUBJECT VERB AGREEMENT	514	49	58	+ 9
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	33	17	- 16
	SENTENCE STRUCTURE				
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	72	68	- 4
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	459	72	69	- 3
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	462	71	70	- 1
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	493	59	58	- 1
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
24	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	70	71	+ 1
	BUILDING AND CHANGING SENTENCES				
25	BUILD AND CHANGE SENTENCES-COMPOUNDING	438	79	72	- 7
26	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	77	80	+ 3
	SPELLING				
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	371	93	89	- 4
28	SPELL-WORD W/ SHORT VOWEL DIGRAPH	360	94	92	- 2
27	SPELL-WORD W/ SHORT VOWEL DIGRAPH	385	91	89	- 2
29	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	422	84	83	- 1
30	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	390	90	90	+ 0
32	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	403	88	89	+ 1

Curriculum Match Profile - X = Expected; O = Observed



DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

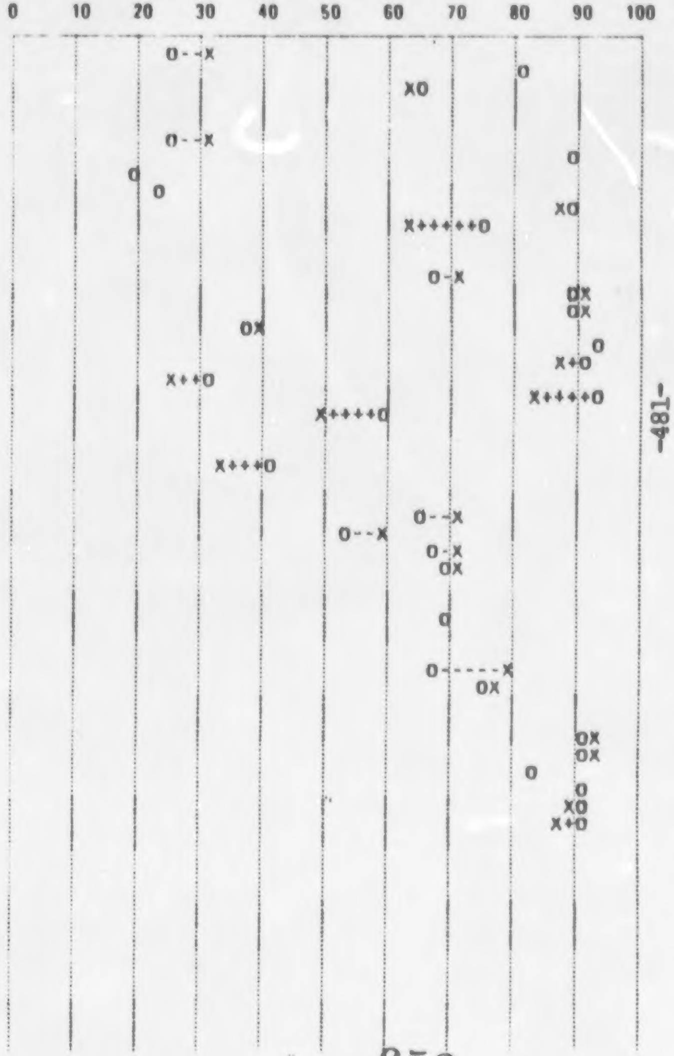
PANAMA LANGUAGE ARTS 304 692 MAY-80 6 1 004-1222

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
02	CAPITALIZATION-PROPER NOUNS	556	31	25	- 6
03	CAPITALIZATION-PRONOUN "I"	429	82	82	+ 0
01	CAPITALIZATION	483	63	66	+ 3
	PUNCTUATION				
05	PUNCTUATION-USE OF COMMAS	556	31	25	- 6
07	PUNCTUATION-USE OF APOSTROPHES	390	90	90	+ 0
09	PUNCTUATION-USE OF APOSTROPHES	592	19	19	+ 0
04	PUNCTUATION-USE OF COMMAS	577	23	24	+ 1
06	PUNCTUATION-USE OF APOSTROPHES	409	87	90	+ 3
08	PUNCTUATION-USE OF APOSTROPHES	483	63	76	+ 13
	USAGE				
13	USAGE - SUBJECT VERB AGREEMENT	461	71	68	- 3
11	USAGE - VERB TENSE	389	91	89	- 2
10	USAGE - VERB TENSE	387	91	90	- 1
18	USAGE-COMPARATIVES AND SUPERLATIVES	536	39	38	- 1
12	USAGE - VERB TENSE	368	94	94	+ 0
17	USAGE-PRONOUN CASE	406	87	91	+ 4
15	USAGE - SUBJECT VERB AGREEMENT	571	25	32	+ 7
16	USAGE - DOUBLE NEGATIVES	420	84	93	+ 9
14	USAGE - SUBJECT VERB AGREEMENT	514	49	59	+ 10
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	33	41	+ 8
	SENTENCE STRUCTURE				
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	72	66	- 6
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	493	59	53	- 6
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	459	72	68	- 4
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	462	71	70	- 1
	DOMAINS OF DISCOURSE-PRACTICAL/INFORMATIVE				
24	PRACT/INFORM DSCRSE-FRIENDLY NOTES/LETTERS	464	70	70	+ 0
	BUILDING AND CHANGING SENTENCES				
25	BUILD AND CHANGE SENTENCES-COMPOUNDING	438	79	67	- 12
26	BUILD AND CHANGE SENTENCES-COMPOUNDING	444	77	76	- 1
	SPELLING				
28	SPELL-WORD W/ SHORT VOWEL DIGRAPH	360	94	92	- 2
31	SPELL-WORD W/ SHORT VOWEL DIGRAPH	371	93	91	- 2
29	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	422	84	83	- 1
27	SPELL-WORD W/ SHORT VOWEL DIGRAPH	385	91	91	+ 0
30	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	390	90	91	+ 1
32	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	403	88	92	+ 4

Curriculum Match Profile - X = Expected; 0 = Observed



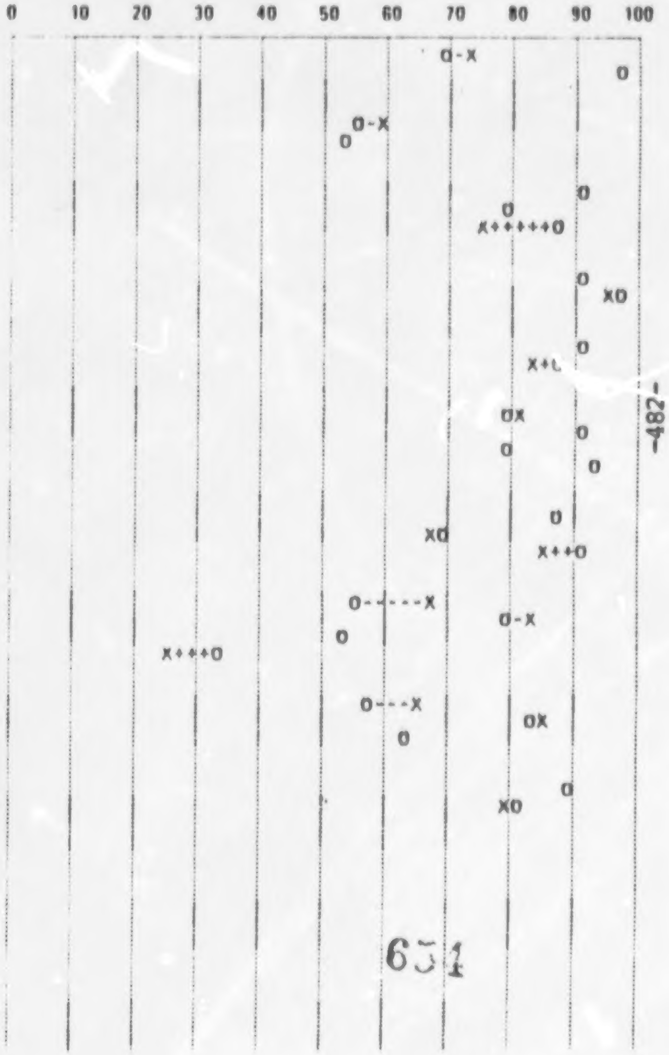
ATLANTIC READING 304 1,316 MAY-80 1 1 001-4315

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descripter	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
02	INITIAL DOUBLE CONSONANTAL BLENDS	496	73	70	- 3
01	INITIAL CONSONANTAL DIGRAPHS	360	97	97	+ 0
	PHONETIC ANALYSIS-VOWELS				
04	VOWEL DIGRAPHS	531	59	56	- 3
03	VOWEL DIGRAPHS	544	53	53	+ 0
	MULTIPLE WORD FORMS				
05	COMPOUND WORDS	426	91	92	+ 1
07	CONTRACTIONS	478	79	80	+ 1
08	CONTRACTIONS	489	75	88	+ 13
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
06	ROOT WORDS	422	92	92	+ 0
09	PREFIXES	393	95	98	+ 3
	WORD MEANING				
13	WORD MEANING-CONTEXTUAL MEANING	427	91	92	+ 1
10	WORD MEANING-CONTEXTUAL MEANING	462	83	87	+ 4
	INTERPRETIVE COMPREHENSION				
17	INTERPRETIVE COMPREHENSION-MAIN IDEA	469	82	79	- 3
18	INTER COMP - CAUSE AND EFFECT	419	92	91	- 1
11	INTERPRETIVE COMPREHENSION-MAIN IDEA	478	79	79	+ 0
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	415	93	94	+ 1
	LITERAL COMPREHENSION				
15	LITERAL COMPREHENSION-SEQUENCE	447	87	88	+ 1
16	LITERAL COMPREHENSION-DETAILS	511	67	69	+ 2
12	LITERAL COMPREHENSION-DETAILS	449	86	91	+ 5
	EVALUATIVE COMPREHENSION				
19	EVALUATIVE COMP. -DISTINGUISH FACT/OPINION	508	68	55	- 13
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	462	83	80	- 3
24	EVAL COMP - IDENT PROB NEW USES RESEARCH	545	53	54	+ 1
20	EVAL COMP - PREDICTIVE OUTCOMES	611	[illegible]	33	+ 7
	DICTIONARY				
25	GUIDE WORDS	515	66	57	- 9
22	ALPHABETIZING	454	86	84	- 2
23	ALPHABETIZING	520	64	63	- 1
26	TABLE OF CONTENTS USE	434	89	89	+ 0
27	GLOSSARY USE	477	79	81	+ 2

Curriculum Match Profile - X = Expected; O = Observed



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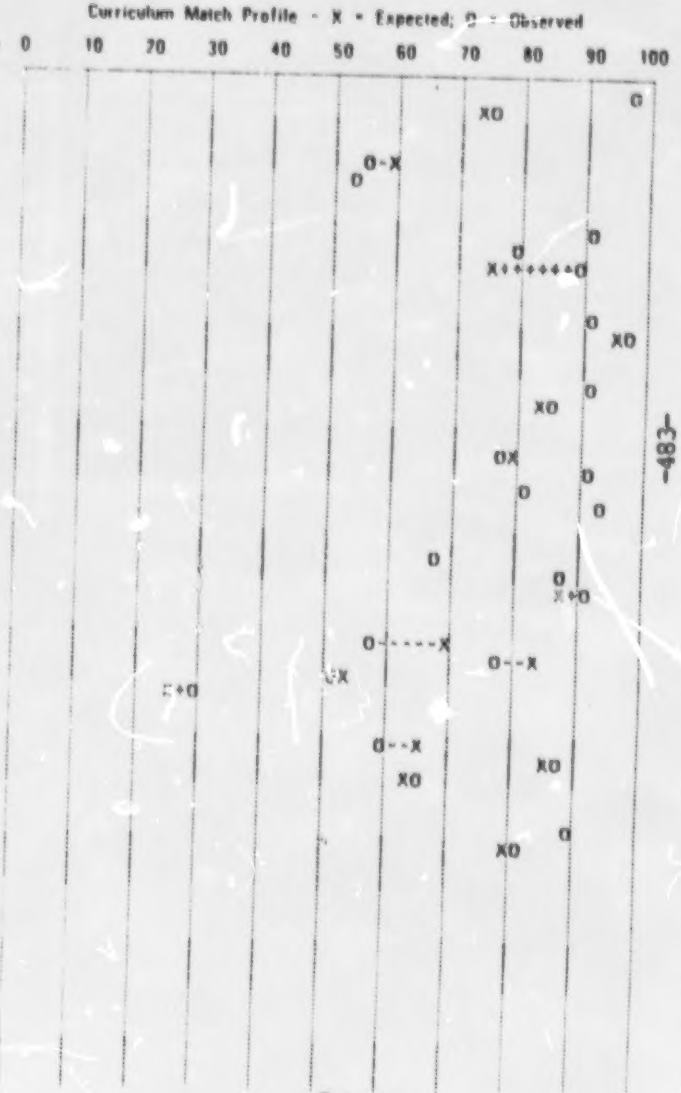
GERMANY NORTH READING 304 4,000 MAY-80 2 1 003-3369

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
01	INITIAL CONSONANTAL DIGRAPHS	360	97	98	+ 1
02	INITIAL DOUBLE CONSONANTAL BLENDS	496	73	75	+ 2
	PHONETIC ANALYSIS-VOWELS				
04	VOWEL DIGRAPHS	531	59	55	- 4
03	VOWEL DIGRAPHS	544	54	54	+ 0
	MULTIPLE WORD FORMS				
05	COMPOUND WORDS	426	91	92	+ 1
07	CONTRACTIONS	478	79	80	+ 1
08	CONTRACTIONS	489	76	89	+ 13
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
06	ROOT WORDS	422	92	92	+ 0
09	PREFIXES	393	95	98	+ 3
	WORD MEANING				
13	WORD MEANING-CONTEXTUAL MEANING	427	91	91	+ 0
10	WORD MEANING-CONTEXTUAL MEANING	462	84	85	+ 1
	INTERPRETIVE COMPREHENSION				
11	INTERPRETIVE COMPREHENSION-MAIN IDEA	478	79	77	- 2
18	INTER COMP - CAUSE AND EFFECT	419	92	91	- 1
17	INTERPRETIVE COMPREHENSION-MAIN IDEA	469	82	82	+ 0
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	415	93	93	+ 0
	LITERAL COMPREHENSION				
16	LITERAL COMPREHENSION-DETAILS	511	68	68	+ 0
15	LITERAL COMPREHENSION-SEQUENCE	447	87	88	+ 1
12	LITERAL COMPREHENSION-DETAILS	449	87	92	+ 5
	EVALUATIVE COMPREHENSION				
19	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	508	69	58	- 11
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	462	84	77	- 7
24	EVAL COMP - IDENT PROB NEW USES RESEARCH	545	53	52	- 1
20	EVAL COMP - PREDICTIVE OUTCOMES	611	26	30	+ 4
	DICTIONARY				
25	GUIDE WORDS	515	66	60	- 6
22	ALPHABETIZING	454	86	87	+ 1
23	ALPHABETIZING	520	64	65	+ 1
26	TABLE OF CONTENTS USE	434	90	90	+ 0
27	GLOSSARY USE	477	80	82	+ 2



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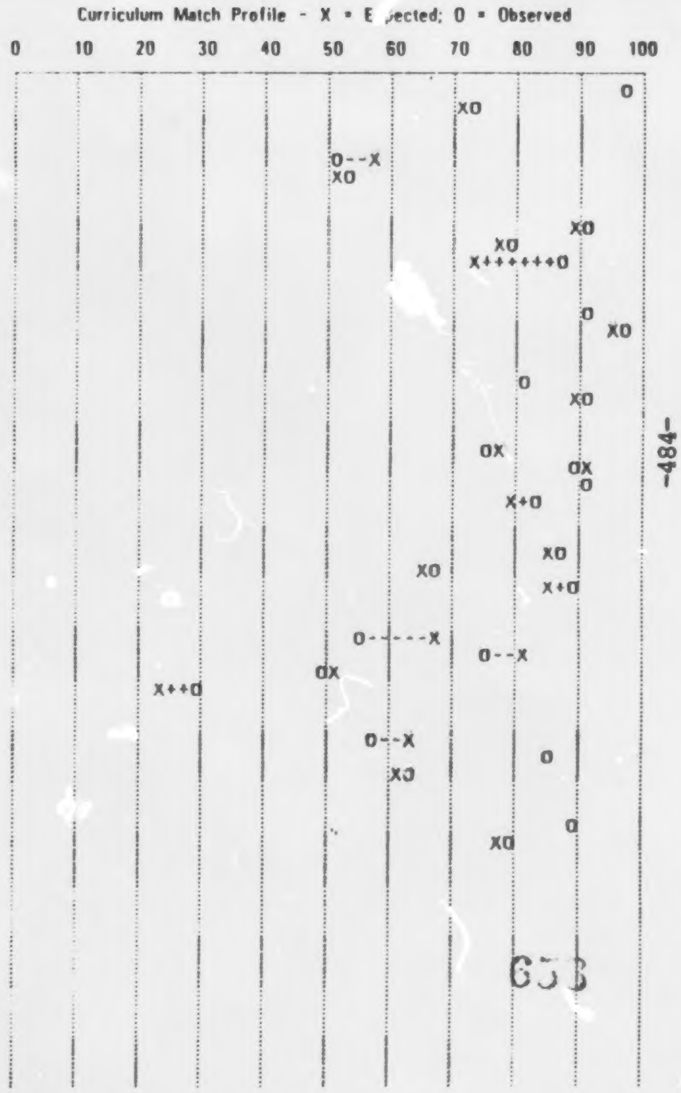
GERMANY SOUTH READING 304 2,825 MAY-80 3 1 001-3825

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 4

Item No.	Skill Area/item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
01	INITIAL CONSONANTAL DIGRAPHS	360	97	97	+ 0
02	INITIAL DOUBLE CONSONANTAL BLENDS	496	71	74	+ 3
	PHONETIC ANALYSIS-VOWELS				
04	VOWEL DIGRAPHS	531	57	52	- 5
03	VOWEL DIGRAPHS	544	52	54	+ 2
	MULTIPLE WORD FORMS				
05	COMPOUND WORDS	426	90	91	+ 1
07	CONTRACTIONS	478	78	80	+ 2
08	CONTRACTIONS	489	74	88	+ 14
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
06	ROOT WORDS	422	91	92	+ 1
09	PREFIXES	393	95	97	+ 2
	WORD MEANING				
10	WORD MEANING-CONTEXTUAL MEANING	462	82	82	+ 0
13	WORD MEANING-CONTEXTUAL MEANING	427	90	91	+ 1
	INTERPRETIVE COMPREHENSION				
11	INTERPRETIVE COMPREHENSION-MAIN IDEA	478	78	76	2
18	INTER COMP - CAUSE AND EFFECT	419	91	89	- 2
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	415	92	92	+ 0
17	INTERPRETIVE COMPREHENSION-MAIN IDEA	469	80	83	+ 3
	LITERAL COMPREHENSION				
15	LITERAL COMPREHENSION-SEQUENCE	447	86	87	+ 1
16	LITERAL COMPREHENSION-DETAILS	511	66	67	+ 1
12	LITERAL COMPREHENSION-DETAILS	449	86	90	+ 4
	EVALUATIVE COMPREHENSION				
19	EVALUATIVE COMP -DISTINGUISH FACT/OPINION	508	67	55	- 12
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	462	82	75	- 7
24	EVAL COMP - IDENT PROB NEW USES RESEARCH	545	51	50	- 1
20	EVAL COMP - PREDICTIVE OUTCOMES	611	24	30	+ 6
	DICTIONARY				
25	GUIDE WORDS	515	64	57	- 7
22	ALPHABETIZING	454	85	85	+ 0
23	ALPHABETIZING	520	62	63	+ 1
26	TABLE OF CONTENTS USE	434	89	89	+ 0
27	GLOSSARY USE	477	78	79	+ 1



DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

MEDITERRANEAN READING 304 1,247 MAY-80 4 1 . . 006-5542

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy	Curriculum Match Profile - X = Expected; O = Observed (0 10 20 30 40 50 60 70 80 90 100)
	PHONETIC ANALYSIS-CONSONANTS					
02	INITIAL DOUBLE CONSONANTAL BLENDS	496	74	72	- 2	OX
01	INITIAL CONSONANTAL DIGRAPHS	360	98	98	+ 0	O
	PHONETIC ANALYSIS-VOWELS					
03	VOWEL DIGRAPHS	544	54	52	- 2	OX
04	VOWEL DIGRAPHS	531	59	57	- 2	OX
	MULTIPLE WORD FORMS					
07	CONTRACTIONS	478	80	81	+ 1	XO
05	COMPOUND WORDS	426	91	93	+ 2	XO
08	CONTRACTIONS	489	76	87	+ 11	X+++++O
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS					
06	ROOT WORDS	422	92	94	+ 2	XO
09	PREFIXES	393	95	98	+ 3	XO
	WORD MEANING					
10	WORD MEANING-CONTEXTUAL MEANING	462	84	85	+ 1	XO
13	WORD MEANING-CONTEXTUAL MEANING	427	91	94	+ 3	XO
	INTERPRETIVE COMPREHENSION					
11	INTERPRETIVE COMPREHENSION-MAIN IDEA	478	80	76	- 4	O-X
18	INTER COMP - CAUSE AND EFFECT	419	93	91	- 2	OX
17	INTERPRETIVE COMPREHENSION-MAIN IDEA	469	82	84	+ 2	XO
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	415	93	95	+ 2	XO
	LITERAL COMPREHENSION					
16	LITERAL COMPREHENSION-DETAILS	511	68	68	+ 0	O
15	LITERAL COMPREHENSION-SEQUENCE	447	88	89	+ 1	XO
12	LITERAL COMPREHENSION-DETAILS	449	87	92	+ 5	X+O
	EVALUATIVE COMPREHENSION					
19	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	508	69	56	- 13	O------X
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	462	84	81	- 3	OX
24	EVAL COMP - IDENT PROB NEW USES RESEARCH	545	53	54	+ 1	O
20	EVAL COMP - PREDICTIVE OUTCOMES	611	26	29	+ 3	X+O
	DICTIONARY					
25	GUIDE WORDS	515	66	55	- 11	O----X
22	ALPHABETIZING	454	86	86	+ 0	O
23	ALPHABETIZING	520	64	65	+ 1	XO
26	TABLE OF CONTENTS USE	434	90	91	+ 1	XO
27	GLOSSARY USE	477	80	82	+ 2	XO

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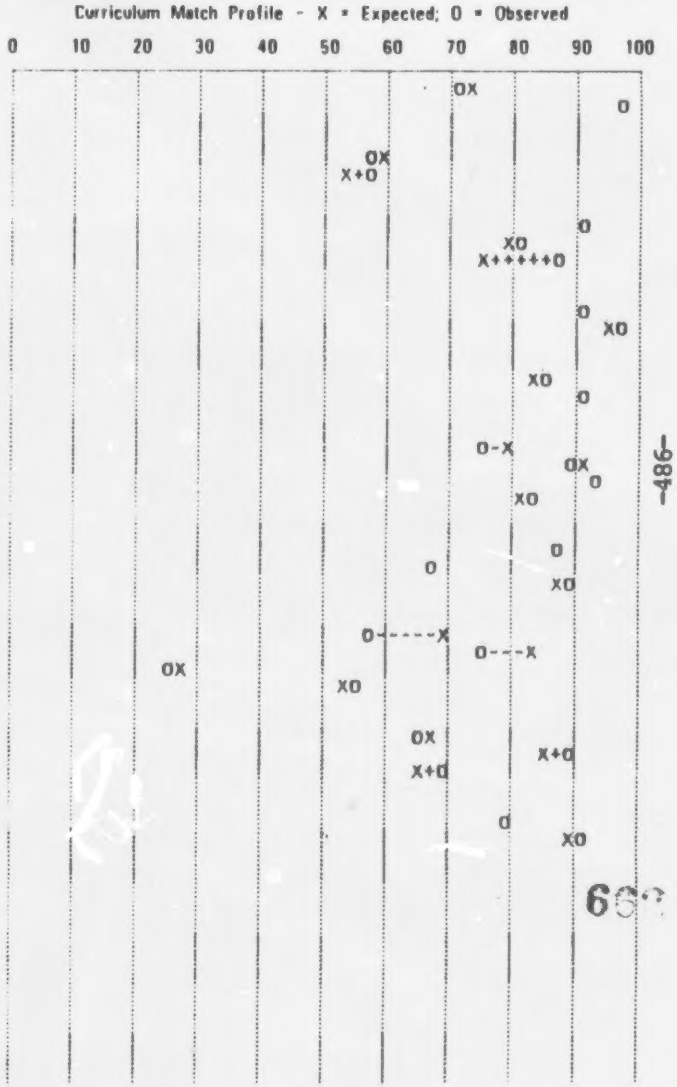
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

PACIFIC READING 304 1,822 MAY-80 5 1 006-3011

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
02	INITIAL DOUBLE CONSONANTAL BLENDS	496	73	72	- 1
01	INITIAL CONSONANTAL DIGRAPHS	360	97	98	+ 1
	PHONETIC ANALYSIS-VOWELS				
04	VOWEL DIGRAPHS	531	60	58	- 2
03	VOWEL DIGRAPHS	544	54	58	+ 4
	MULTIPLE WORD FORMS				
05	COMPOUND WORDS	426	91	91	+ 0
07	CONTRACTIONS	478	79	81	+ 2
08	CONTRACTIONS	489	76	88	+ 12
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
06	ROOT WORDS	422	92	92	+ 0
09	PREFIXES	393	95	98	+ 3
	WORD MEANING				
10	WORD MEANING-CONTEXTUAL MEANING	462	84	85	+ 1
13	WORD MEANING-CONTEXTUAL MEANING	427	91	92	+ 1
	INTERPRETIVE COMPREHENSION				
11	INTERPRETIVE COMPREHENSION-MAIN IDEA	478	79	75	- 4
18	INTER COMP - CAUSE AND EFFECT	419	92	90	- 2
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	415	93	93	+ 0
17	INTERPRETIVE COMPREHENSION-MAIN IDEA	469	82	83	+ 1
	LITERAL COMPREHENSION				
15	LITERAL COMPREHENSION-SEQUENCE	447	87	87	+ 0
16	LITERAL COMPREHENSION-DETAILS	511	68	68	+ 0
12	LITERAL COMPREHENSION-DETAILS	449	87	90	+ 3
	EVALUATIVE COMPREHENSION				
19	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	508	69	57	- 12
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	462	84	76	- 8
20	EVAL COMP - PREDICTIVE OUTCOMES	611	27	25	- 2
24	EVAL COMP - IDENT PROB NEW USES RESEARCH	545	54	55	+ 1
	DICTIONARY				
25	GUIDE WORDS	515	67	65	- 2
22	ALPHABETIZING	454	86	89	+ 3
23	ALPHABETIZING	520	65	69	+ 4
27	GLOSSARY USE	477	80	80	+ 0
26	TABLE OF CONTENTS USE	434	90	91	+ 1

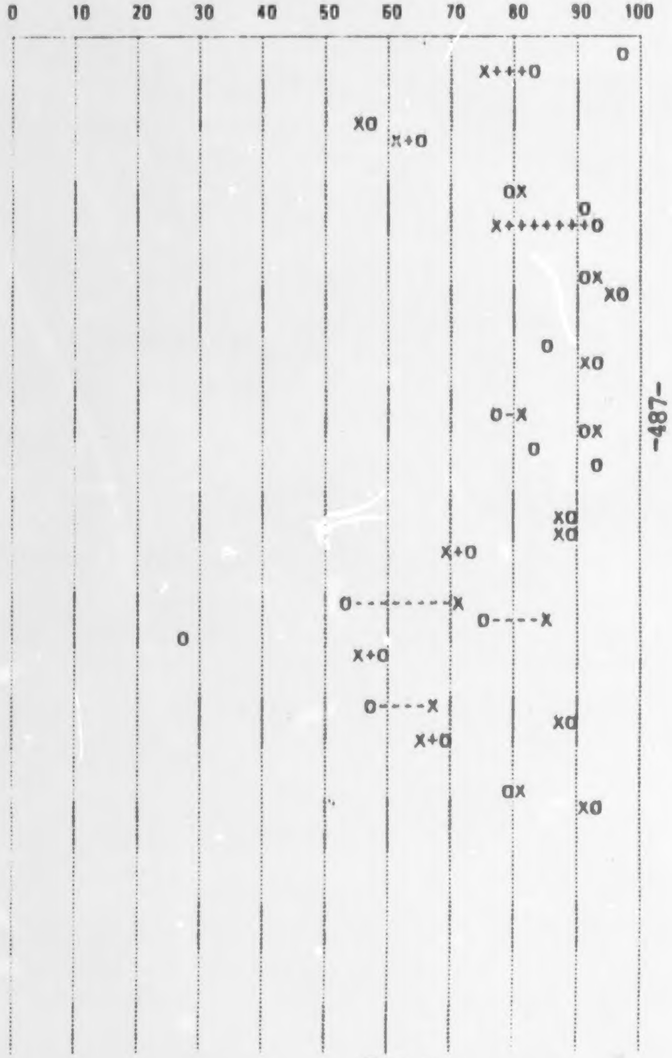


PANAMA READING 304 692 MAY-80 6 1 004-1235

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 4

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
01	INITIAL CONSONANTAL DIGRAPHS	360	98	98	+ 0
02	INITIAL DOUBLE CONSONANTAL BLENDS	496	75	83	+ 8
	PHONETIC ANALYSIS-VOWELS				
03	VOWEL DIGRAPHS	544	58	57	+ 1
04	VOWEL DIGRAPHS	531	61	65	+ 4
	MULTIPLE WORD FORMS				
07	CONTRACTIONS	478	81	79	- 2
05	COMPOUND WORDS	426	92	92	+ 0
08	CONTRACTIONS	489	77	93	+ 16
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
06	ROOT WORDS	422	93	91	- 2
09	PREFIXES	393	96	98	+ 2
	WORD MEANING				
10	WORD MEANING-CONTEXTUAL MEANING	462	85	86	+ 1
13	WORD MEANING-CONTEXTUAL MEANING	427	92	93	+ 1
	INTERPRETIVE COMPREHENSION				
11	INTERPRETIVE COMPREHENSION-MAIN IDEA	478	81	78	- 3
18	INTER COMP - CAUSE AND EFFECT	419	93	91	- 2
17	INTERPRETIVE COMPREHENSION-MAIN IDEA	469	83	83	+ 0
14	INTERPRETIVE COMPREHENSION-MAIN IDEA	415	93	93	+ 0
	LITERAL COMPREHENSION				
12	LITERAL COMPREHENSION-DETAILS	449	88	90	+ 2
15	LITERAL COMPREHENSION-SEQUENCE	447	88	90	+ 2
16	LITERAL COMPREHENSION-DETAILS	511	69	73	+ 4
	EVALUATIVE COMPREHENSION				
19	EVALUATIVE COMP.-DISTINGUISH FACT/OPINION	508	71	53	- 18
21	EVAL COMP - COMPAR GENERALIZE SUMMARIZE	462	85	75	- 10
20	EVAL COMP - PREDICTIVE OUTCOMES	611	28	27	- 1
24	EVAL COMP - IDENT PROB NEW USES RESEARCH	545	55	59	+ 4
	DICTIONARY				
25	GUIDE WORDS	515	68	57	- 11
22	ALPHABETIZING	454	87	90	+ 3
23	ALPHABETIZING	520	66	69	+ 3
27	GLOSSARY USE	477	81	79	- 2
26	TABLE OF CONTENTS USE	434	91	93	+ 2

Curriculum Match Profile - X = Expected; O = Observed



DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

ATLANTIC MATHEMATICS 303 1,398 MAY-80 1 1 001-4286

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy	Curriculum Match Profile - X = Expected; O = Observed
	COMPREHENSION-ARITHMETIC PROPERTIES					
06	COMPREHENSION-ORDER	430	60	58	- 2	OX
05	COMPREHENSION-ORDER	391	75	74	- 1	OX
08	COMPREHENSION-ROUNDING	460	47	48	+ 1	O
11	COMPRE PROP OF DISTRIB COMMUT ASSOC CLOSURE	408	69	70	+ 1	O
01	COMPREHENSION-PLACE VALUE	400	72	74	+ 2	XO
07	COMPREHENSION-ROUNDING	460	47	54	+ 7	X++O
	COMPREHENSION-READ & WRITE NUMERALS					
02	COMPR READ,WRITE NUMERALS-ARABIC	308	93	88	- 5	O--X
	COMPREHEND PICTORIAL REPRESENTATION					
04	COMPRE PIC REPRESENTATION OF FRACTIONS	404	70	69	- 1	O
03	COMPRE PIC REPRESENTATION OF FRACTIONS	456	49	52	+ 3	XO
	ARITHMETIC COMPUTATION					
09	ADD MULTIDIGIT INTGRS WITH REGROUP	397	73	71	- 2	OX
14	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	368	82	80	- 2	OX
16	SUBTRACT TRIPLE DIGIT INTEGERS W REGROUP	417	65	63	- 2	OX
17	SUBTRACT 2-DIGIT FROM 3-DIGIT W/REGROUPING	404	70	68	- 2	OX
18	SUBTRACT TRIPLE DIGIT INTEGERS WO REGROUP	314	92	90	- 2	OX
12	ADD DOUBLE DIGIT INTEGERS WITH REGROUPING	370	81	80	- 1	OX
28	DIVIDE 2 DIGIT INTEGER WITHOUT REMAINDER	389	75	74	- 1	OX
13	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	376	79	79	+ 0	O
15	SUBTRACT 2-DIGIT INTEGERS WITH REGROUPING	389	75	76	+ 1	O
29	MULTIPLY SINGLE DIGIT INTEGERS WO REGROUP	340	88	89	+ 1	XO
	MEASUREMENT APPLICATIONS					
10	APPLY-MONEY-MIXED OPERATIONS	387	76	74	- 2	OX
19	APPLY-MONEY-SUBTRACTING	404	70	70	+ 0	O
22	APPLY TELLING TIME	296	95	95	+ 0	O
23	APPLY TELLING TIME	422	63	66	+ 3	XO
	ARITHMETIC APPLICATIONS					
20	APPLY ADDITION-INTEGERS	401	71	70	- 1	OX
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)					
21	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	402	71	81	+ 10	X++++O
	MEASUREMENT COMPUTATION					
24	COMPUTE MEASURE OF UNDEFINED SQUARE UNITS	350	86	86	+ 0	O
	APPLY-ARITHMETIC PROPERTIES					
25	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	408	69	75	+ 6	X++O
	COMPREHEND GEOMETRY					
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	434	58	53	- 5	O-X
26	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	384	77	77	+ 0	O
	COMPUTER KNOWLEDGE					
30	COMPUTER KNOWLEDGE	502	30	30	+ 0	O

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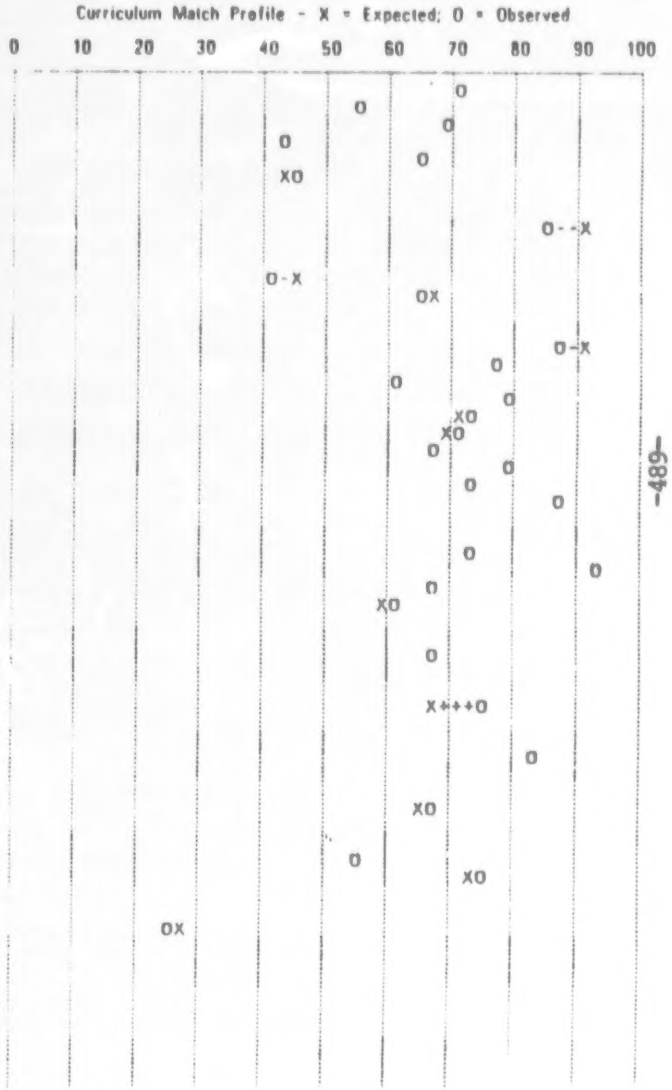
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

GERMANY NORTH   MATHEMATICS   303   4,551   MAY-80   2   1   003-3354

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

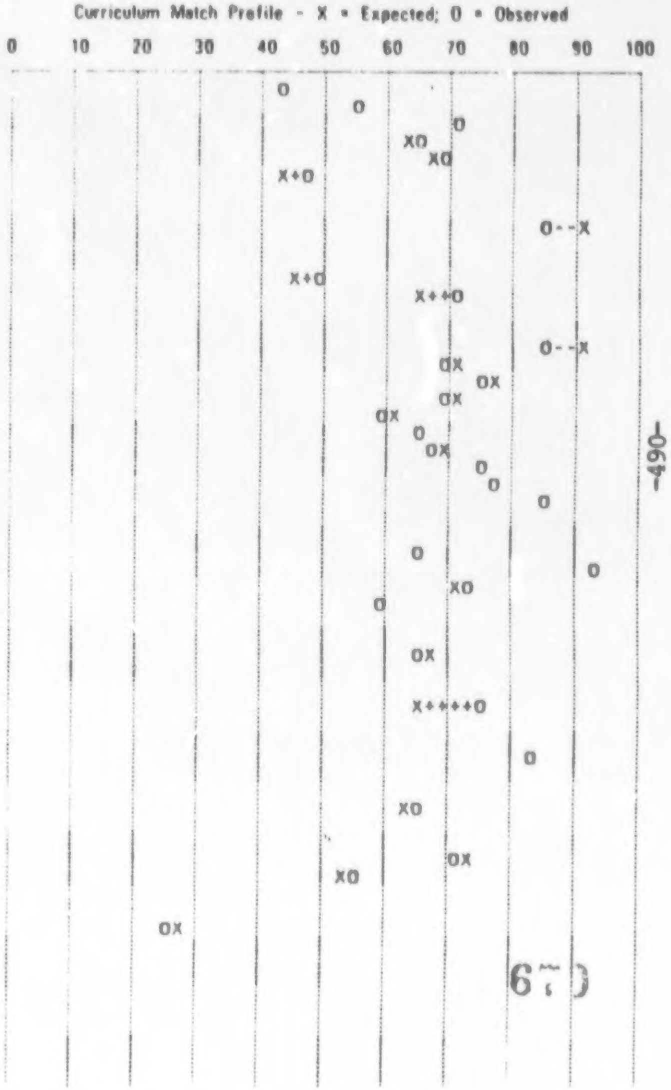
Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	COMPREHENSION-ARITHMETIC PROPERTIES				
05	COMPREHENSION-ORDER	391	72	71	- 1
06	COMPREHENSION-ORDER	430	56	55	- 1
01	COMPREHENSION-PLACE VALUE	400	69	69	+ 0
08	COMPREHENSION-ROUNDING	460	43	43	+ 0
11	COMPRE PROP OF DISTRIB COMMUT ASSOC CLOSURE	408	65	66	+ 1
07	COMPREHENSION-ROUNDING	460	43	46	+ 3
	COMPREHENSION-READ & WRITE NUMERALS				
02	COMPR READ,WRITE NUMERALS-ARABIC	308	92	85	- 7
	COMPREHEND PICTORIAL REPRESENTATION				
03	COMPRE PIC REPRESENTATION OF FRACTIONS	456	45	42	- 3
04	COMPRE PIC REPRESENTATION OF FRACTIONS	404	67	66	- 1
	ARITHMETIC COMPUTATION				
18	SUBTRACT TRIPLE DIGIT INTEGERS WO REGROUP	314	91	88	- 3
13	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	376	77	77	+ 0
16	SUBTRACT TRIPLE DIGIT INTEGERS W REGROUP	417	62	62	+ 0
12	ADD DOUBLE DIGIT INTEGERS WITH REGROUPING	370	79	79	+ 0
15	SUBTRACT 2-DIGIT INTEGERS WITH REGROUPING	389	72	73	+ 1
09	ADD MULTIDIGIT INTGRS WITH REGROUP	397	70	71	+ 1
17	SUBTRACT 2-DIGIT FROM 3-DIGIT W/REGROUPING	404	67	68	+ 1
14	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	368	79	80	+ 1
28	DIVIDE 2 DIGIT INTEGER WITHOUT REMAINDER	389	73	74	+ 1
29	MULTIPLY SINGLE DIGIT INTEGERS WO REGROUP	340	87	88	+ 1
	MEASUREMENT APPLICATIONS				
10	APPLY-MONEY-MIXED OPERATIONS	387	73	73	+ 0
22	APPLY TELLING TIME	296	94	94	+ 0
19	APPLY-MONEY-SUBTRACTING	404	67	68	+ 1
23	APPLY TELLING TIME	422	60	61	+ 1
	ARITHMETIC APPLICATIONS				
20	APPLY ADDITION-INTEGERS	401	68	68	+ 0
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
21	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	402	68	75	+ 7
	MEASUREMENT COMPUTATION				
24	COMPUTE MEASURE OF UNDEFINED SQUARE UNITS	350	84	84	+ 0
	APPLY-ARITHMETIC PROPERTIES				
25	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	408	65	67	+ 2
	COMPREHEND GEOMETRY				
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	434	55	55	+ 0
26	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	384	74	76	+ 2
	COMPUTER KNOWLEDGE				
30	COMPUTER KNOWLEDGE	502	27	25	- 2



GERMANY SOUTH MATHEMATICS 303 3,160 MAY-80 3 1 001-3316

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	COMPREHENSION-ARITHMETIC PROPERTIES				
08	COMPREHENSION-ROUNDING	460	43	43	+ 0
06	COMPREHENSION-ORDER	430	55	56	+ 1
05	COMPREHENSION-ORDER	391	71	72	+ 1
11	COMPRE PROP OF DISTRIB COMMUT ASSOC CLOSURE	408	64	65	+ 1
01	COMPREHENSION-PLACE VALUE	400	67	69	+ 2
07	COMPREHENSION-ROUNDING	460	43	47	+ 4
	COMPREHENSION-READ & WRITE NUMERALS				
02	COMPR READ,WRITE NUMERALS-ARABIC	308	91	86	- 5
	COMPREHEND PICTORIAL REPRESENTATION				
03	COMPRE PIC REPRESENTATION OF FRACTIONS	456	45	49	+ 4
04	COMPRE PIC REPRESENTATION OF FRACTIONS	404	66	71	+ 5
	ARITHMETIC COMPUTATION				
18	SUBTRACT TRIPLE DIGIT INTEGERS WO REGROUP	314	91	86	- 5
15	SUBTRACT 2-DIGIT INTEGERS WITH REGROUPING	389	71	69	- 2
14	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	368	78	76	- 2
28	DIVIDE 2 DIGIT INTEGER WITHOUT REMAINDER	389	71	69	- 2
16	SUBTRACT TRIPLE DIGIT INTEGERS W REGROUP	417	61	60	- 1
17	SUBTRACT 2-DIGIT FROM 3-DIGIT W/REGROUPING	404	66	65	- 1
09	ADD MULTIDIGIT INTGRS WITH REGROUP	397	69	68	- 1
13	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	376	76	75	- 1
12	ADD DOUBLE DIGIT INTEGERS WITH REGROUPING	370	78	78	+ 0
29	MULTIPLY SINGLE DIGIT INTEGERS WO REGROUP	340	86	86	+ 0
	MEASUREMENT APPLICATIONS				
19	APPLY-MONEY-SUBTRACTING	404	66	66	+ 0
22	APPLY TELLING TIME	296	93	93	+ 0
10	APPLY-MONEY-MIXED OPERATIONS	387	72	73	+ 1
23	APPLY TELLING TIME	422	59	60	+ 1
	ARITHMETIC APPLICATIONS				
20	APPLY ADDITION-INTEGERS	401	67	65	- 2
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
21	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	402	66	75	+ 9
	MEASUREMENT COMPUTATION				
24	COMPUTE MEASURE OF UNDEFINED SQUARE UNITS	350	83	84	+ 1
	APPLY-ARITHMETIC PROPERTIES				
25	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	408	64	66	+ 2
	COMPREHEND GEOMETRY				
26	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	384	73	71	- 2
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	434	54	55	+ 1
	COMPUTER KNOWLEDGE				
30	COMPUTER KNOWLEDGE	502	27	25	- 2



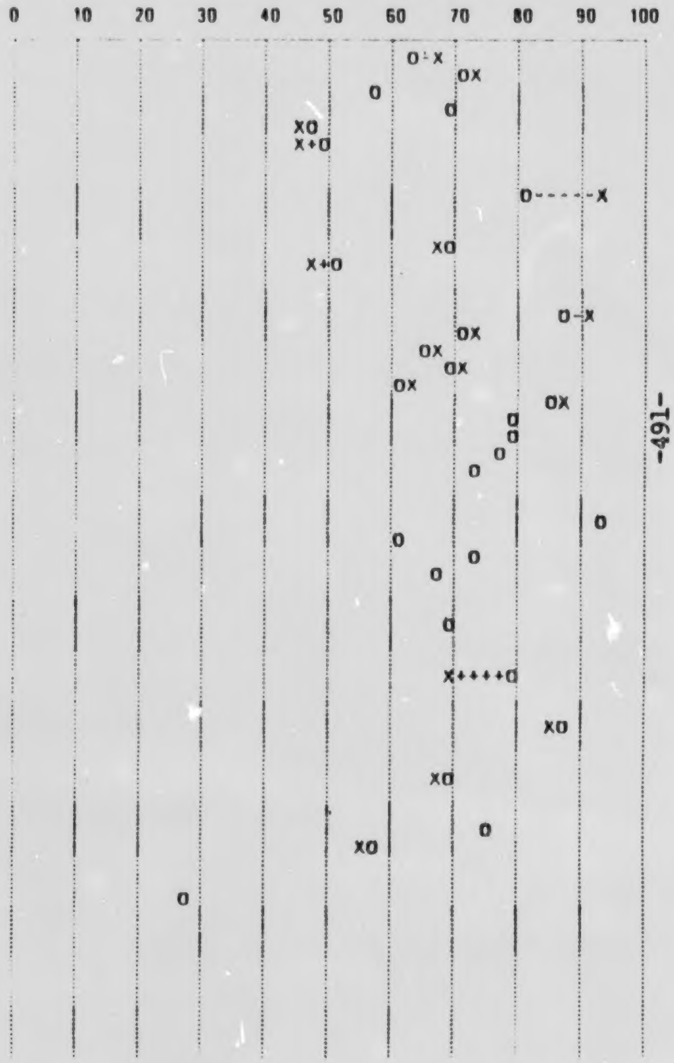
MEDITERRANEAN MATHEMATICS 303 1,363 MAY-80 4 1 006-5446 .

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	COMPREHENSION-ARITHMETIC PROPERTIES				
11	COMPRE PROP OF DISTRIB COMMUT ASSOC CLOSURE	408	67	64	- 3
05	COMPREHENSION-ORDER	391	73	71	- 2
06	COMPREHENSION-ORDER	430	58	57	- 1
01	COMPREHENSION-PLACE VALUE	400	70	69	- 1
08	COMPREHENSION-ROUNDING	460	45	47	+ 2
07	COMPREHENSION-ROUNDING	460	45	50	+ 5
	COMPREHENSION-READ & WRITE NUMERALS				
02	COMPR READ,WRITE NUMERALS-ARABIC	308	93	82	- 11
	COMPREHEND PICTORIAL REPRESENTATION				
04	COMPRE PIC REPRESENTATION OF FRACTIONS	404	68	70	+ 2
03	COMPRE PIC REPRESENTATION OF FRACTIONS	456	47	51	+ 4
	ARITHMETIC COMPUTATION				
18	SUBTRACT TRIPLE DIGIT INTEGERS WO REGROUP	314	92	87	- 5
28	DIVIDE 2 DIGIT INTEGER WITHOUT REMAINDER	389	74	71	- 3
17	SUBTRACT 2-DIGIT FROM 3-DIGIT W/REGROUPING	404	68	66	- 2
09	ADD MULTIDIGIT INTGRS WITH REGROUP	397	71	69	- 2
16	SUBTRACT TRIPLE DIGIT INTEGERS W REGROUP	417	63	61	- 2
29	MULTIPLY SINGLE DIGIT INTEGERS WO REGROUP	340	87	86	- 1
14	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	368	80	80	+ 0
12	ADD DOUBLE DIGIT INTEGERS WITH REGROUPING	370	80	80	+ 0
13	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	376	78	78	+ 0
15	SUBTRACT 2-DIGIT INTEGERS WITH REGROUPING	389	73	74	+ 1
	MEASUREMENT APPLICATIONS				
22	APPLY TELLING TIME	296	94	94	+ 0
23	APPLY TELLING TIME	422	61	61	+ 0
10	APPLY-MONEY-MIXED OPERATIONS	387	74	74	+ 0
19	APPLY-MONEY-SUBTRACTING	404	68	68	+ 0
	ARITHMETIC APPLICATIONS				
20	APPLY ADDITION-INTEGERS	401	69	70	+ 1
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)				
21	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	402	69	80	+ 11
	MEASUREMENT COMPUTATION				
24	COMPUTE MEASURE OF UNDEFINED SQUARE UNITS	350	85	88	+ 3
	APPLY-ARITHMETIC PROPERTIES				
25	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	408	67	70	+ 3
	COMPREHEND GEOMETRY				
26	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	384	75	76	+ 1
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	434	56	58	+ 2
	COMPUTER KNOWLEDGE				
30	COMPUTER KNOWLEDGE	502	28	28	+ 0

Curriculum Match Profile - X = Expected; O = Observed



PACIFIC MATHEMATICS 303 2,054 MAY-80 5 1 006-2849

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 3

Curriculum Match Profile - X = Expected; O = Observed

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy	Profile (0–100)
	COMPREHENSION-ARITHMETIC PROPERTIES					
01	COMPREHENSION-PLACE VALUE	400	71	67	- 4	O-X
08	COMPREHENSION-ROUNDING	460	46	43	- 3	OX
11	COMPRE PROP OF DISTRIB COMMUT ASSOC CLOSURE	408	68	68	+ 0	O
06	COMPREHENSION-ORDER	430	59	60	+ 1	O
05	COMPREHENSION-ORDER	391	74	77	+ 3	X+O
07	COMPREHENSION-ROUNDING	460	46	50	+ 4	X+O
	COMPREHENSION-READ & WRITE NUMERALS					
02	COMPR READ,WRITE NUMERALS-ARABIC	308	93	88	- 5	O--X
	COMPREHEND PICTORIAL REPRESENTATION					
04	COMPRE PIC REPRESENTATION OF FRACTIONS	404	70	68	- 2	OX
03	COMPRE PIC REPRESENTATION OF FRACTIONS	456	48	46	- 2	OX
	ARITHMETIC COMPUTATION					
18	SUBTRACT TRIPLE DIGIT INTEGERS WO REGROUP	314	92	90	- 2	OX
29	MULTIPLY SINGLE DIGIT INTEGERS WO REGROUP	340	83	87	- 1	O
13	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	376	79	79	+ 0	O
15	SUBTRACT 2-DIGIT INTEGERS WITH REGROUPING	389	75	75	+ 0	O
17	SUBTRACT 2-DIGIT FROM 3-DIGIT W/REGROUPING	404	70	70	+ 0	O
09	ADD MULTIDIGIT INTGRS WITH REGROUP	397	72	72	+ 0	O
12	ADD DOUBLE DIGIT INTEGERS WITH REGROUPING	370	81	81	+ 0	O
28	DIVIDE 2 DIGIT INTEGER WITHOUT REMAINDER	389	75	76	+ 1	O
16	SUBTRACT TRIPLE DIGIT INTEGERS W REGROUP	417	64	65	+ 1	XO
14	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	368	81	83	+ 2	XO
	MEASUREMENT APPLICATIONS					
23	APPLY TELLING TIME	422	62	59	- 3	OX
22	APPLY TELLING TIME	296	95	95	+ 0	O
19	APPLY-MONEY-SUBTRACTING	404	69	69	+ 0	O
10	APPLY-MONEY-MIXED OPERATIONS	387	75	79	+ 4	X+O
	ARITHMETIC APPLICATIONS					
20	APPLY ADDITION-INTEGERS	401	70	71	+ 1	XO
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)					
21	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	402	70	84	+ 14	X++++++O
	MEASUREMENT COMPUTATION					
24	COMPUTE MEASURE OF UNDEFINED SQUARE UNITS	350	86	87	+ 1	XO
	APPLY-ARITHMETIC PROPERTIES					
25	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	408	68	70	+ 2	XO
	COMPREHEND GEOMETRY					
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	434	57	54	- 3	O-X
26	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	384	76	76	+ 0	O
	COMPUTER KNOWLEDGE					
30	COMPUTER KNOWLEDGE	502	29	24	- 5	O--X

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-492-

DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

PANAMA MATHEMATICS 303 722 MAY-80 6 1 004-1186

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy	Curriculum Match Profile - X = Expected; O = Observed (0 10 20 30 40 50 60 70 80 90 100)
	COMPREHENSION-ARITHMETIC PROPERTIES					
08	COMPREHENSION-ROUNDING	460	45	40	- 5	O--X
11	COMPRE PROP OF DISTRIB COMMUT ASSOC CLOSURE	408	68	64	- 4	O-X
07	COMPREHENSION-ROUNDING	460	45	47	+ 2	XO
05	COMPREHENSION-ORDER	391	74	80	+ 6	X++O
06	COMPREHENSION-ORDER	430	59	66	+ 7	X++O
01	COMPREHENSION-PLACE VALUE	400	71	80	+ 9	X+++O
	COMPREHENSION-READ & WRITE NUMERALS					
02	COMPR READ,WRITE NUMERALS-ARABIC	308	93	89	- 4	O-X
	COMPREHEND PICTORIAL REPRESENTATION					
03	COMPRE PIC REPRESENTATION OF FRACTIONS	456	47	41	- 6	O--X
04	COMPRE PIC REPRESENTATION OF FRACTIONS	404	70	67	- 3	OX
	ARITHMETIC COMPUTATION					
18	SUBTRACT TRIPLE DIGIT INTEGERS WO REGROUP	314	92	90	- 2	OX
29	MULTIPLY SINGLE DIGIT INTEGERS WO REGROUP	340	88	88	+ 0	O
15	SUBTRACT 2-DIGIT INTEGERS WITH REGROUPING	389	75	77	+ 2	XO
13	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	376	79	82	+ 3	XO
09	ADD MULTIDIGIT INTGRS WITH REGROUP	397	72	75	+ 3	X+O
12	ADD DOUBLE DIGIT INTEGERS WITH REGROUPING	370	81	85	+ 4	X+O
14	ADD TRIPLE DIGIT INTEGERS WITH REGROUPING	368	81	86	+ 5	X+O
28	DIVIDE 2 DIGIT INTEGER WITHOUT REMAINDER	389	75	81	+ 6	X++O
7	SUBTRACT 2-DIGIT FROM 3-DIGIT W/REGROUPING	404	70	77	+ 7	X++O
16	SUBTRACT TRIPLE DIGIT INTEGERS W REGROUP	417	64	71	+ 7	X+++O
	MEASUREMENT APPLICATIONS					
23	APPLY TELLING TIME	422	62	53	- 9	O---X
19	APPLY-MONEY-SUBTRACTING	404	69	61	- 8	O---X
10	APPLY-MONEY-MIXED OPERATIONS	387	76	71	- 5	O-X
22	APPLY TELLING TIME	296	95	93	- 2	OX
	ARITHMETIC APPLICATIONS					
20	APPLY ADDITION-INTEGERS	401	71	75	+ 4	X+O
	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)					
21	APPLY-FUNCTIONS,GRAPHS(CHARTS/TABLES)	402	70	80	+ 10	X++++O
	MEASUREMENT COMPUTATION					
24	COMPUTE MEASURE OF UNDEFINED SQUARE UNITS	350	86	81	- 5	O-X
	APPLY-ARITHMETIC PROPERTIES					
25	APPLY ARITH PROPERTIES-ORDER/SEQUENCE	408	68	67	- 1	O
	COMPREHEND GEOMETRY					
27	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	434	57	48	- 9	O----X
26	COMPR-GEOMETRY-ID 2-DIMENSIONAL FIGURES	384	76	74	- 2	OX
	COMPUTER KNOWLEDGE					
30	COMPUTER KNOWLEDGE	502	28	26	- 2	OX

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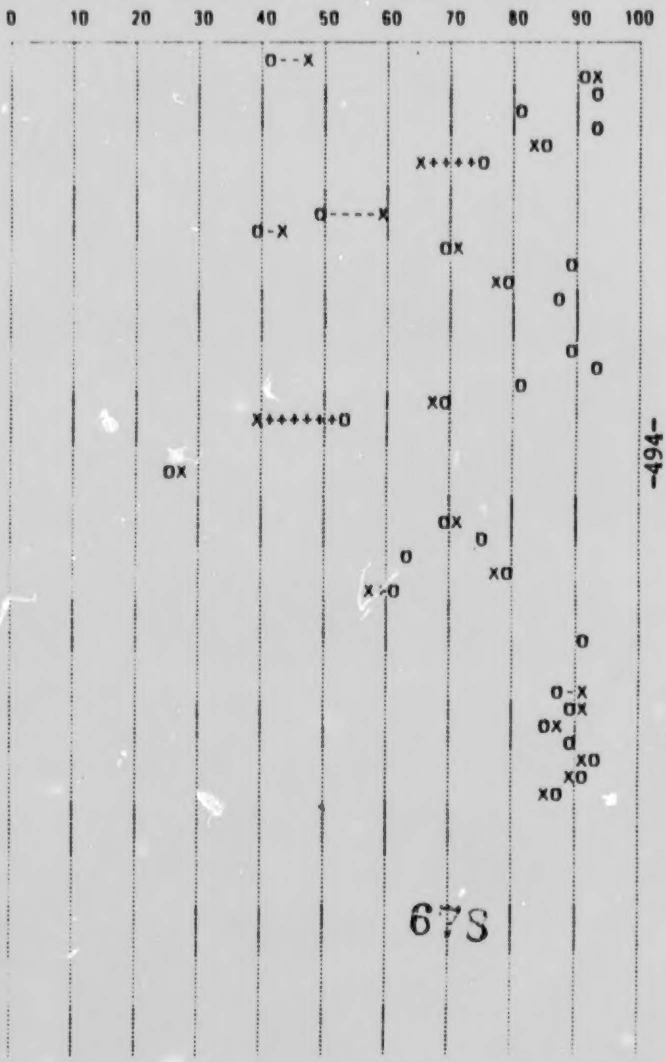
ATLANTIC LANGUAGE ARTS 303 1,374 MAY-80 1 1 001-4242

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
04	CAPITALIZATION-PROPER NOUNS	500	47	41	- 6
03	CAPITALIZATION-PRONOUN "I"	343	93	91	- 2
02	CAPITALIZATION-PROPER NOUNS	338	93	93	+ 0
13	CAPITALIZATION-ABBREVIATIONS	399	82	82	+ 0
01	CAPITALIZATION-SENTENCE BEGINNING	342	93	94	+ 1
06	CAPITALIZATION-PROPER NOUNS	396	83	85	+ 2
05	CAPITALIZATION-INITIALS	452	66	75	+ 9
	PUNCTUATION				
11	PUNCTUATION-USE OF COMMAS	471	59	50	- 9
12	PUNCTUATION-USE OF COMMAS	507	44	39	- 5
10	PUNCTUATION-USE OF THE EXCLAMATION MARK	436	72	69	- 3
07	PUNCTUATION-USE OF THE PERIOD	361	90	90	+ 0
08	PUNCTUATION-USE OF THE QUESTION MARK	416	78	79	+ 1
09	PUNCTUATION-USE OF THE QUESTION MARK	376	87	88	+ 1
	USAGE				
14	USAGE - VERB TENSE	361	90	90	+ 0
17	USAGE-PRONOUN CASE	341	93	93	+ 0
18	USAGE-PRONOUN AGREEMENT	400	82	82	+ 0
16	USAGE - SUBJECT VERB AGREEMENT	445	68	69	+ 1
15	USAGE - SUBJECT VERB AGREEMENT	515	40	53	+ 13
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	27	25	- 2
	SENTENCE STRUCTURE				
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	71	70	- 1
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	422	76	75	- 1
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	63	63	+ 0
24	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	420	77	79	+ 2
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	474	57	61	+ 4
	WORD FORMS				
25	FORM CLASS WORDS (N,V,ADV,ADJ,ARTICLES)	355	91	91	+ 0
	SPELLING				
31	SPELLING-UNCOMMON VOWEL UNIT	354	91	88	- 3
32	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	357	91	89	- 2
27	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	379	87	86	- 1
30	SPELL-WORD W/ SHORT VOWEL DIGRAPH	366	89	90	+ 1
26	SPELLING-SCHWA SOUND	343	92	93	+ 1
28	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	359	90	91	+ 1
29	SPELLING-AGENT NOUN SUFFIX	387	85	87	+ 2

Curriculum Match Profile - X = Expected; O = Observed



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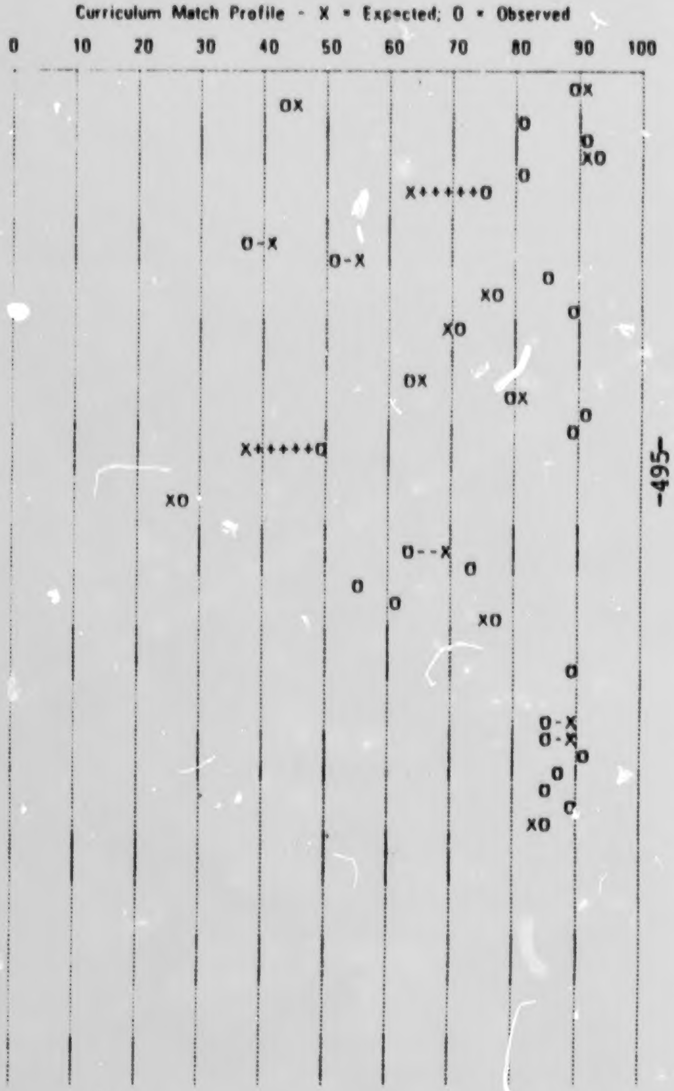
GERMANY NORTH LANGUAGE ARTS 303 4,544 MAY-80 2 1 003-3357

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
03	CAPITALIZATION-PRONOUN "I"	343	92	90	- 2
04	CAPITALIZATION-PROPER NOUNS	500	45	43	- 2
06	CAPITALIZATION-PROPER NOUNS	398	82	81	- 1
01	CAPITALIZATION-SENTENCE BEGINNING	342	92	92	+ 0
02	CAPITALIZATION-PROPER NOUNS	338	92	93	+ 1
13	CAPITALIZATION-ABBREVIATIONS	399	81	82	+ 1
05	CAPITALIZATION-INITIALS	452	64	76	+ 12
	PUNCTUATION				
12	PUNCTUATION-USE OF COMMAS	507	42	38	- 4
11	PUNCTUATION-USE OF COMMAS	471	56	52	- 4
09	PUNCTUATION-USE OF THE QUESTION MARK	376	86	86	+ 0
08	PUNCTUATION-USE OF THE QUESTION MARK	416	76	77	+ 1
07	PUNCTUATION-USE OF THE PERIOD	361	89	90	+ 1
10	PUNCTUATION-USE OF THE EXCLAMATION MARK	436	70	71	+ 1
	USAGE				
16	USAGE - SUBJECT VERB AGREEMENT	445	66	64	- 2
18	USAGE-PRONOUN AGREEMENT	400	81	79	- 2
17	USAGE-PRONOUN CASE	341	92	91	- 1
14	USAGE - VERB TENSE	361	89	89	+ 0
15	USAGE - SUBJECT VERB AGREEMENT	515	38	50	+ 12
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	25	28	+ 3
	SENTENCE STRUCTURE				
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	69	64	- 5
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	422	74	73	- 1
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	474	55	56	+ 1
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	61	62	+ 1
24	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	420	75	77	+ 2
	WORD FORMS				
25	FORM CLASS WORDS (N.V.ADV.ADJ.ARTICLES)	355	90	90	+ 0
	SPELLING				
31	SPELLING-UNCOMMON VOWEL UNIT	354	90	85	- 5
32	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	357	90	86	- 4
26	SPELLING-SCHWA SOUND	343	92	91	- 1
30	SPELL-WORD W/ SHORT VOWEL DIGRAPH	366	88	88	+ 0
27	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	379	86	86	+ 0
28	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	359	89	89	+ 0
29	SPELLING-AGENT NOUN SUFFIX	387	84	85	+ 1

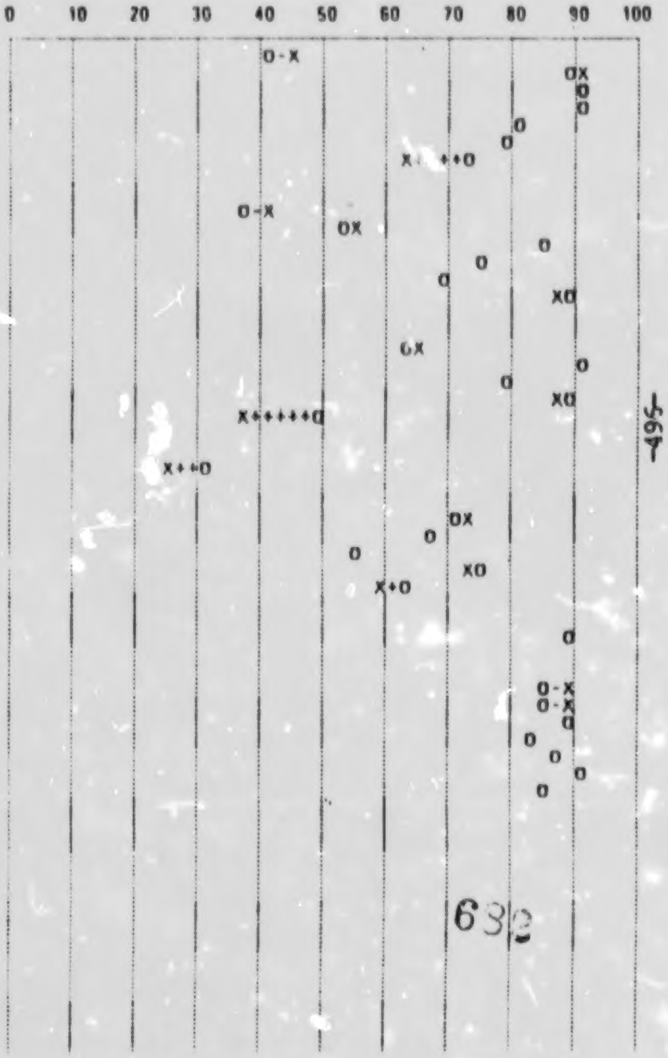


GERMANY SOUTH LANGUAGE ARTS 303 3,149 MAY-80 3 1 001-3817

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
04	CAPITALIZATION-PROPER NOUNS	500	45	42	- 3
03	CAPITALIZATION-PRONOUN "I"	343	91	89	- 2
01	CAPITALIZATION-SENTENCE BEGINNING	342	92	92	+ 0
02	CAPITALIZATION-PROPER NOUNS	338	92	92	+ 0
06	CAPITALIZATION-PROPER NOUNS	396	81	81	+ 0
13	CAPITALIZATION-ABBREVIATIONS	399	80	80	+ 0
05	CAPITALIZATION-INITIALS	452	63	74	+ 11
	PUNCTUATION				
12	PUNCTUATION-USE OF COMMAS	507	42	37	- 5
11	PUNCTUATION-USE OF COMMAS	471	56	53	- 3
09	PUNCTUATION-USE OF THE QUESTION MARK	376	86	85	- 1
08	PUNCTUATION-USE OF THE QUESTION MARK	416	75	75	+ 0
10	PUNCTUATION-USE OF THE EXCLAMATION MARK	436	69	70	+ 1
07	PUNCTUATION-USE OF THE PERIOD	361	88	89	+ 1
	USAGE				
16	USAGE - SUBJECT VERB AGREEMENT	445	66	64	- 2
17	USAGE-PRONOUN CASE	341	92	92	+ 0
18	USAGE-PRONOUN AGREEMENT	400	80	80	+ 0
14	USAGE - VERB TENSE	361	88	89	+ 1
15	USAGE - SUBJECT VERB AGREEMENT	515	38	49	+ 11
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	26	32	+ 6
	SENTENCE STRUCTURE				
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	422	74	72	- 2
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	68	67	- 1
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	474	55	55	+ 0
24	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	420	74	75	+ 1
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	60	63	+ 3
	WORD FORMS				
25	FORM CLASS WORDS (N.V.ADV.ADJ.ARTICLES)	355	89	89	+ 0
	SPELLING				
31	SPELLING-UNCOMMON VOWEL UNIT	354	90	85	- 5
32	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	357	89	85	- 4
28	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	359	89	89	+ 0
29	SPELLING-AGENT NOUN SUFFIX	387	83	83	+ 0
30	SPELL-WORD W/ SHORT VOWEL DIGRAPH	366	88	88	+ 0
26	SPELLING-SCHWA SOUND	343	91	91	+ 0
27	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	379	85	85	+ 0

Curriculum Match Profile - X = Expected; O = Observed



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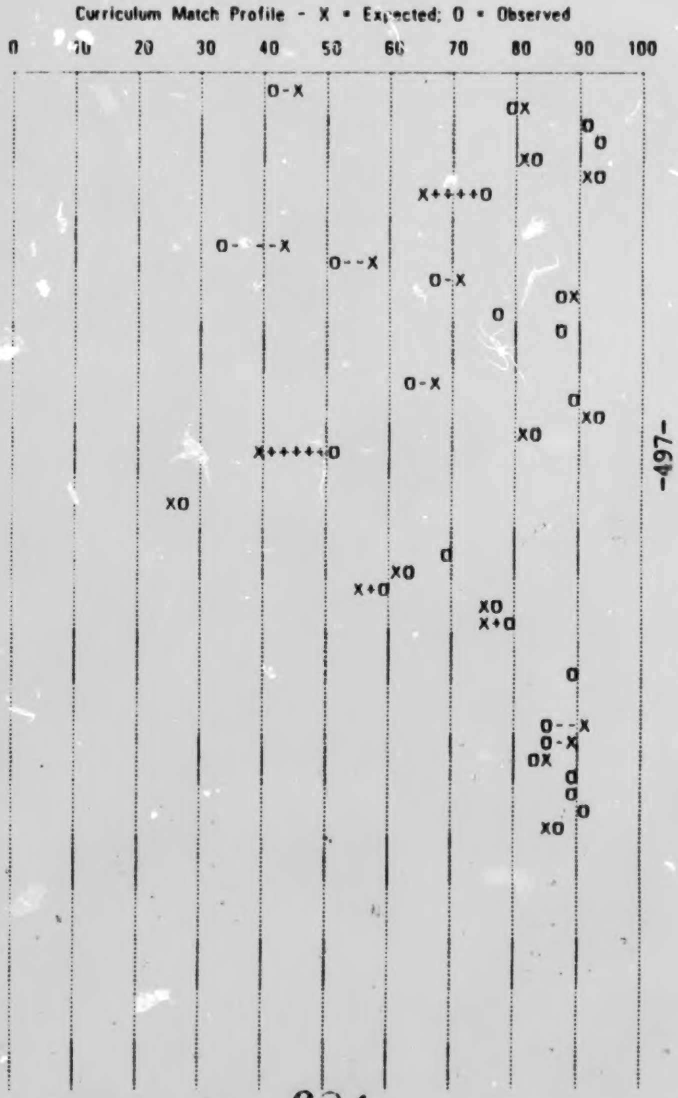
MEDITERRANEAN LANGUAGE ARTS 303 1,361 MAY-80 4 1 006-5451

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
04	CAPITALIZATION-PROPER NOUNS	500	46	41	- 5
13	CAPITALIZATION-ABBREVIATIONS	399	82	79	- 3
03	CAPITALIZATION-PRONOUN "I"	343	92	91	- 1
02	CAPITALIZATION-PROPER NOUNS	338	93	94	+ 1
06	CAPITALIZATION-PROPER NOUNS	396	82	84	+ 2
01	CAPITALIZATION-SENTENCE BEGINNING	342	92	94	+ 2
05	CAPITALIZATION-INITIALS	452	65	75	+ 10
	PUNCTUATION				
12	PUNCTUATION-USE OF COMMAS	507	43	34	- 9
11	PUNCTUATION-USE OF COMMAS	471	57	52	- 5
10	PUNCTUATION-USE OF THE EXCLAMATION MARK	436	71	68	- 3
07	PUNCTUATION-USE OF THE PERIOD	361	89	88	- 1
08	PUNCTUATION-USE OF THE QUESTION MARK	416	77	77	+ 0
09	PUNCTUATION-USE OF THE QUESTION MARK	376	87	88	+ 1
	USAGE				
16	USAGE - SUBJECT VERB AGREEMENT	445	67	64	- [illegible]
14	USAGE - VERB TENSE	361	89	90	+ 1
17	USAGE-PRONOUN CASE	341	92	93	+ 1
18	USAGE-PRONOUN AGREEMENT	400	81	83	+ 2
15	USAGE - SUBJECT VERB AGREEMENT	515	39	51	+ 12
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	26	28	+ 2
	SENTENCE STRUCTURE				
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	70	70	+ 0
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	62	63	+ 1
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	474	56	59	+ 3
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	422	75	78	+ 3
24	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	420	76	79	+ 3
	WORD FORMS				
25	FORM CLASS WORDS (N,V,ADV,ADJ,ARTICLES)	355	90	90	+ 0
	SPELLING				
31	SPELLING-UNCOMMON VOWEL UNIT	354	91	86	- 5
32	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	357	90	86	- 4
29	SPELLING-AGENT NOUN SUFFIX	387	85	84	- 1
30	SPELL-WORD W/ SHORT VOWEL DIGRAPH	366	89	89	+ 0
28	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	359	90	90	+ 0
26	SPELLING-SCHWA SOUND	343	92	92	+ 0
27	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	379	86	87	+ 1



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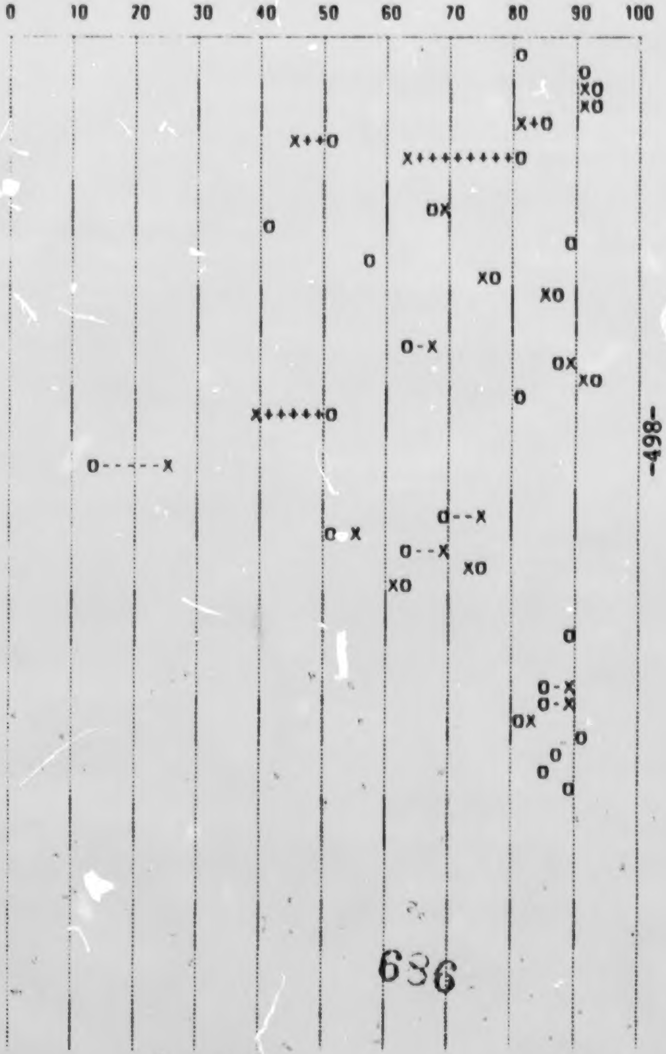
PACIFIC LANGUAGE ARTS 303 2,044 MAY-80 5 1 006-2850

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	CAPITALIZATION				
06	CAPITALIZATION-PROPER NOUNS	396	82	81	- 1
03	CAPITALIZATION-PRONOUN "I"	343	92	92	+ 0
02	CAPITALIZATION-PROPER NOUNS	338	92	93	+ 1
01	CAPITALIZATION-SENTENCE BEGINNING	342	92	94	+ 2
13	CAPITALIZATION-ABBREVIATIONS	399	81	85	+ 4
04	CAPITALIZATION-PROPER NOUNS	500	45	51	+ 6
05	CAPITALIZATION-INITIALS	452	64	81	+ 17
	PUNCTUATION				
10	PUNCTUATION-USE OF THE EXCLAMATION MARK	436	70	68	- 2
12	PUNCTUATION-USE OF COMMAS	507	42	41	- 1
07	PUNCTUATION-USE OF THE PERIOD	361	89	89	+ 0
11	PUNCTUATION-USE OF COMMAS	471	57	57	+ 0
08	PUNCTUATION-USE OF THE QUESTION MARK	416	76	78	+ 2
09	PUNCTUATION-USE OF THE QUESTION MARK	376	86	88	+ 2
	USAGE				
16	USAGE - SUBJECT VERB AGREEMENT	445	67	64	- 3
14	USAGE - VERB TENSE	361	89	87	- 2
17	USAGE-PRONOUN CASE	341	92	93	+ 1
18	USAGE-PRONOUN AGREEMENT	400	81	82	+ 1
15	USAGE - SUBJECT VERB AGREEMENT	515	39	52	+ 13
	SENTENCE PATTERNS				
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	26	14	- 12
	SENTENCE STRUCTURE				
24	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	420	75	69	- 6
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	474	56	51	- 5
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	69	64	- 5
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	422	74	75	+ 1
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	61	64	+ 3
	WORD FORMS				
25	FORM CLASS WORDS (N.V.ADV.ADJ.ARTICLES)	355	90	90	+ 0
	SPELLING				
31	SPELLING-UNCOMMON VOWEL UNIT	354	90	85	- 5
32	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	357	90	86	- 4
29	SPELLING-AGENT NOUN SUFFIX	387	84	81	- 3
26	SPELLING-SCHWA SOUND	343	92	92	+ 0
30	SPELL-WORD W/ SHORT VOWEL DIGRAPH	366	88	88	+ 0
27	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	379	86	86	+ 0
28	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	359	89	89	+ 0

Curriculum Match Profile - X = Expected; O = Observed



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DEPARTMENT OF DEFENSE
DEPENDENTS SCHOOLS

PANAMA LANGUAGE ARTS 303 718 MAY-80 6 1 004-1210

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy	Curriculum Match Profile - X = Expected; O = Observed 0 10 20 30 40 50 60 70 80 90 100
	CAPITALIZATION					
13	CAPITALIZATION-ABBREVIATIONS	399	83	79	- 4	O-X
06	CAPITALIZATION-PROPER NOUNS	396	84	83	- 1	O
01	CAPITALIZATION-SENTENCE BEGINNING	342	93	93	+ 0	O
02	CAPITALIZATION-PROPER NOUNS	338	93	94	+ 1	O
03	CAPITALIZATION-PRONOUN "I"	343	93	95	+ 2	XO
04	CAPITALIZATION-PROPER NOUNS	500	49	54	+ 5	X+O
05	CAPITALIZATION-INITIALS	452	67	84	+ 17	X+++++++O
	PUNCTUATION					
12	PUNCTUATION-USE OF COMMAS	507	46	40	- 6	O--X
08	PUNCTUATION-USE OF THE QUESTION MARK	416	79	75	- 4	O-X
10	PUNCTUATION-USE OF THE EXCLAMATION MARK	436	73	71	- 2	OX
09	PUNCTUATION-USE OF THE QUESTION MARK	376	88	88	+ 0	O
07	PUNCTUATION-USE OF THE PERIOD	361	90	90	+ 0	O
11	PUNCTUATION-USE OF COMMAS	471	60	67	+ 7	X+++O
	USAGE					
16	USAGE - SUBJECT VERB AGREEMENT	445	70	65	- 5	O-X
14	USAGE - VERB TENSE	361	90	90	+ 0	O
17	USAGE-PRONOUN CASE	341	93	93	+ 0	O
18	USAGE-PRONOUN AGREEMENT	400	83	84	+ 1	O
15	USAGE - SUBJECT VERB AGREEMENT	515	42	50	+ 8	X+++O
	SENTENCE PATTERNS					
19	SENTENCE PATTERNS-SUBJECT AND PREDICATE	550	2[illegible]	23	- 6	O--X
	SENTENCE STRUCTURE					
21	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	460	64	57	- 7	O--X
20	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	439	72	68	- 4	O-X
23	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	422	77	75	- 2	OX
22	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	474	59	59	+ 0	O
24	SENTENCE STRUCTURE-COMPLETE/INCOMPLETE	420	78	80	+ 2	XO
	WORD FORMS					
25	FORM CLASS WORDS (N.V.ADV.ADJ.ARTICLES)	355	91	93	+ 2	XO
	SPELLING					
31	SPELLING-UNCOMMON VOWEL UNIT	354	91	88	- 3	O-X
32	SPELLING-CONSONANT DBLING MORE THAN 1 SYLL	357	91	88	- 3	O-X
30	SPELL-WORD W/ SHORT VOWEL DIGRAPH	366	90	90	+ 0	O
26	SPELLING-SCHWA SOUND	343	93	93	+ 0	O
27	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	379	87	87	+ 0	O
28	SPELL-WORD W/ SHRT VOWL IN MID OF SYL	359	91	92	+ 1	O
29	SPELLING-AGENT NOUN SUFFIX	387	86	88	+ 2	XO

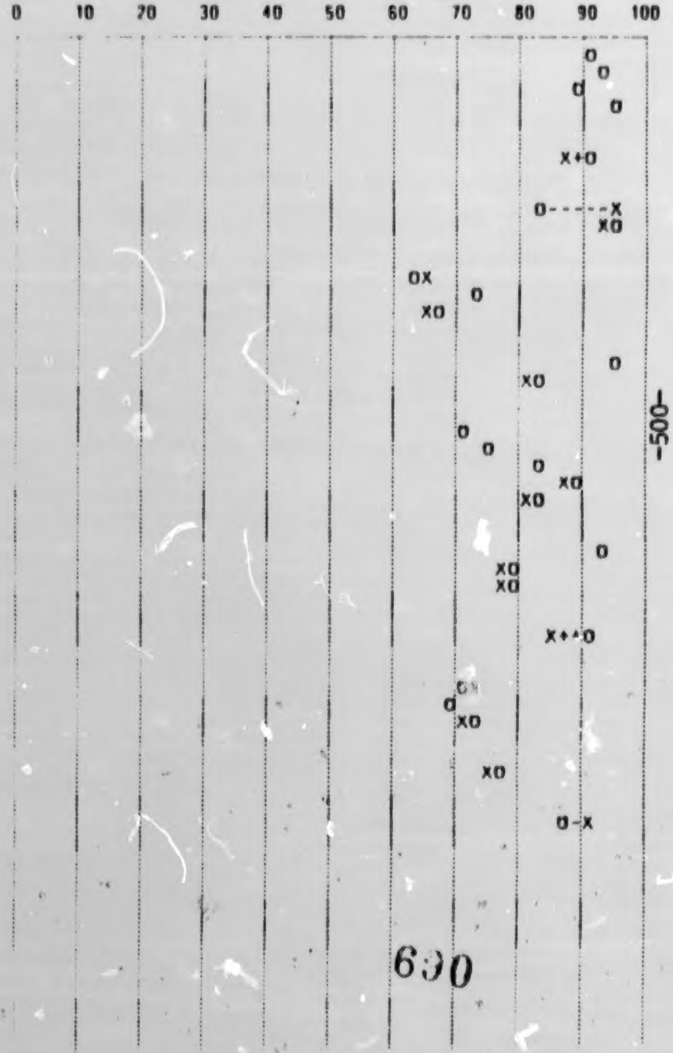
DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

ATLANTIC READING 303 1,393 MAY-80 1 1 001-4295

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
02	SINGLE INITIAL CONSONANTS	429	92	92	+ 0
03	SINGLE INITIAL CONSONANTS	418	94	94	+ 0
04	VARIANT CONSONANTAL SOUNDS	449	89	89	+ 0
01	SINGLE INITIAL CONSONANTS	403	95	96	+ 1
	EVALUATIVE COMPREHENSION				
05	EVAL COMP - DISTINGUISH FANTASY AND REALISM	459	87	92	+ 5
	WORD RECOGNITION				
15	WORD RECOGNITION-BASIC SIGHT WORDS	388	96	84	- 12
06	WORD RECOGNITION-BASIC SIGHT WORDS	415	94	95	+ 1
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
12	ROOT WORDS	539	65	63	- 2
13	SUFFIXES	516	73	74	+ 1
07	PLURAL NOUNS-INFLECTIONAL ENDINGS	538	65	68	+ 3
	WORD MEANING				
08	WORD MEANING-CONTEXTUAL MEANING	406	95	95	+ 0
22	WORD MEANING-CONTEXTUAL MEANING	487	81	84	+ 3
	LITERAL COMPREHENSION				
26	LITERAL COMPREHENSION-DETAILS	518	72	71	- 1
25	LITERAL COMPREHENSION-DETAILS	509	75	75	+ 0
09	LITERAL COMPREHENSION-SEQUENCE	479	83	83	+ 0
14	LITERAL COMPREHENSION-MAIN IDEA	455	88	90	+ 2
20	LITERAL COMPREHENSION-DETAILS	488	81	84	+ 3
	INTERPRETIVE COMPREHENSION				
10	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	423	93	93	+ 0
19	INTERPRETIVE COMPREHENSION MAIN IDEA	500	78	80	+ 2
21	INTER COMP - CAUSE AND EFFECT	501	77	80	+ 3
	MULTIPLE WORD FORMS				
11	COMPOUND WORDS	470	85	92	+ 7
	PHONETIC ANALYSIS-VOWELS				
18	SHORT VOWEL SOUNDS	511	74	71	- 3
17	LONG VOWEL SOUNDS	527	69	69	+ 0
16	SHORT VOWEL SOUNDS	520	71	74	+ 3
	DICTIONARY				
23	ALPHABETIZING	509	75	76	+ 3
24	TABLE OF CONTENTS USE	434	92	88	- 4

Curriculum Match Profile - X = Expected; O = Observed



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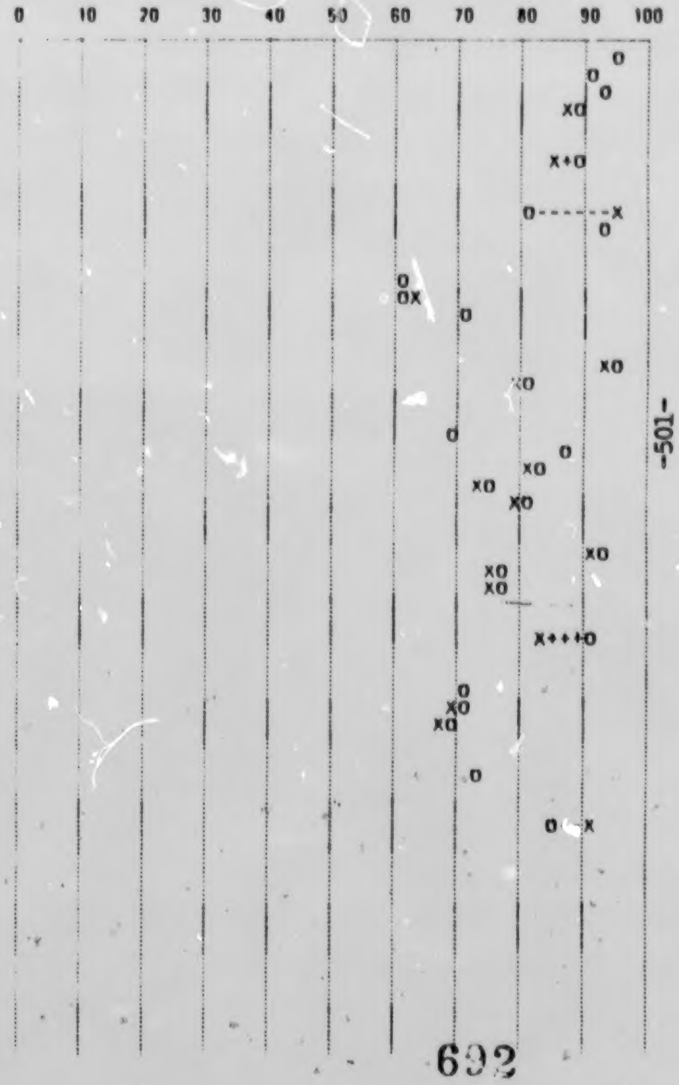
GERMANY NORTH READING 303 4.550 MAY-80 2 1 003-3361

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
01	SINGLE INITIAL CONSONANTS	403	95	96	+ 1
02	SINGLE INITIAL CONSONANTS	429	91	92	+ 1
03	SINGLE INITIAL CONSONANTS	418	93	94	+ 1
04	VARIANT CONSONANTAL SOUNDS	449	88	90	+ 2
	EVALUATIVE COMPREHENSION				
05	EVAL COMP - DISTINGUISH FANTASY AND REALISM	459	86	89	+ 3
	WORD RECOGNITION				
15	WORD RECOGNITION-BASIC SIGHT WORDS	388	96	82	- 14
06	WORD RECOGNITION-BASIC SIGHT WORDS	415	93	94	+ 1
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
12	ROOT WORDS	539	62	61	- 1
07	PLURAL NOUNS-INFLECTIONAL ENDINGS	538	63	62	- 1
13	SUFFIXES	516	71	72	+ 1
	WORD MEANING				
08	WORD MEANING-CONTEXTUAL MEANING	406	94	95	+ 1
22	WORD MEANING-CONTEXTUAL MEANING	487	80	81	+ 1
	LITERAL COMPREHENSION				
26	LITERAL COMPREHENSION-DETAILS	518	70	70	+ 0
14	LITERAL COMPREHENSION-MAIN IDEA	455	87	88	+ 1
09	LITERAL COMPREHENSION-SEQUENCE	479	82	83	+ 1
25	LITERAL COMPREHENSION-DETAILS	509	73	75	+ 2
20	LITERAL COMPREHENSION-DETAILS	485	79	81	+ 2
	INTERPRETIVE COMPREHENSION				
10	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	423	92	93	+ 1
19	INTERPRETIVE COMPREHENSION-MAIN IDEA	500	76	78	+ 2
21	INTER COMP - CAUSE AND EFFECT	501	75	78	+ 3
	MULTIPLE WORD FORMS				
11	COMPOUND WORDS	470	84	91	+ 7
	PHONETIC ANALYSIS-VOWELS				
18	SHORT VOWEL SOUNDS	511	72	72	+ 0
16	SHORT VOWEL SOUNDS	520	69	71	+ 2
17	LONG VOWEL SOUNDS	527	67	70	+ 3
	DICTIONARY				
23	ALPHABETIZING	509	73	74	+ 1
24	TABLE OF CONTENTS USE	434	91	86	- 5

Curriculum Match Profile - X = Expected; O = Observed



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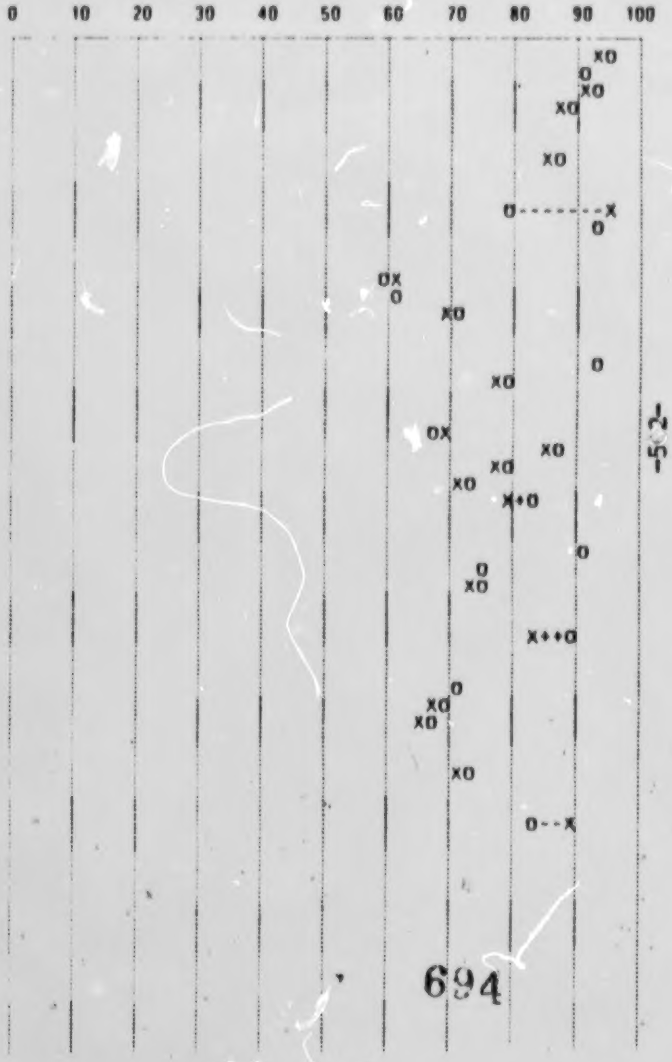
DEPARTMENT OF DEFENSE

GERMANY SOUTH READING 303 3,164 MAY-80 3 1 001-3817

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
01	SINGLE INITIAL CONSONANTS	403	94	95	+ 1
02	SINGLE INITIAL CONSONANTS	429	91	92	+ 1
03	SINGLE INITIAL CONSONANTS	418	92	94	+ 2
04	VARIANT CONSONANTAL SOUNDS	449	87	89	+ 2
	EVALUATIVE COMPREHENSION				
05	EVAL COMP - DISTINGUISH FANTASY AND REALISM	459	85	87	+ 2
	WORD RECOGNITION				
15	WORD RECOGNITION-BASIC SIGHT WORDS	388	95	80	- 15
06	WORD RECOGNITION-BASIC SIGHT WORDS	415	93	94	+ 1
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
07	PLURAL NOUNS-INFLECTIONAL ENDINGS	538	61	60	- 1
12	ROOT WORDS	539	61	61	+ 0
13	SUFFIXES	516	69	72	+ 3
	WORD MEANING				
08	WORD MEANING-CONTEXTUAL MEANING	406	94	94	+ 0
22	WORD MEANING-CONTEXTUAL MEANING	487	78	80	+ 2
	LITERAL COMPREHENSION				
28	LITERAL COMPREHENSION-DETAILS	518	69	67	- 2
14	LITERAL COMPREHENSION-MAIN IDEA	455	86	87	+ 1
20	LITERAL COMPREHENSION-DETAILS	488	78	79	+ 1
25	LITERAL COMPREHENSION-DETAILS	509	72	74	+ 2
09	LITERAL COMPREHENSION-SEQUENCE	479	80	83	+ 3
	INTERPRETIVE COMPREHENSION				
10	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	423	92	92	+ 0
19	INTERPRETIVE COMPREHENSION-MAIN IDEA	500	75	76	+ 1
21	INTER COMP - CAUSE AND EFFECT	501	74	76	+ 2
	MULTIPLE WORD FORMS				
11	COMPOUND WORDS	470	83	90	+ 7
	PHONETIC ANALYSIS-VOWELS				
18	SHORT VOWEL SOUNDS	511	71	71	+ 0
15	SHORT VOWEL SOUNDS	520	68	70	+ 2
17	LONG VOWEL SOUNDS	527	65	68	+ 3
	DICTIONARY				
23	ALPHABETIZING	509	72	73	+ 1
24	TABLE OF CONTENTS USE	434	90	84	- 6

Curriculum Match Profile - X = Expected; O = Observed



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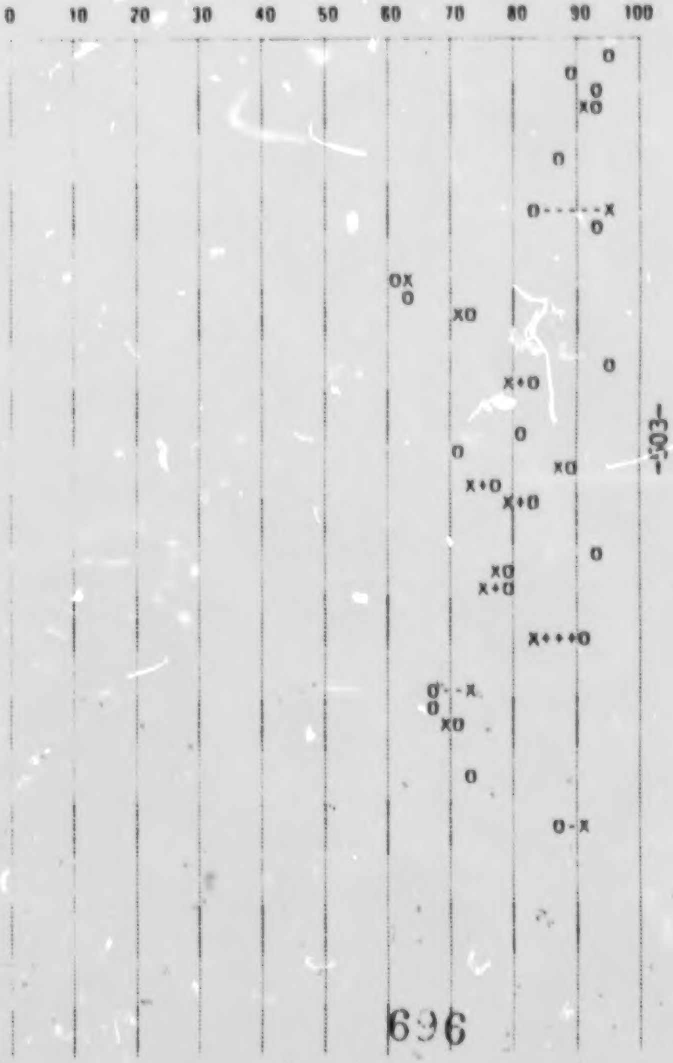
MEDITERRANEAN READING 303 1,366 MAY-80 4 1 006-5477

BASIC SKILLS ASSESSMENT

Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
01	SINGLE INITIAL CONSONANTS	403	95	95	+ 0
04	VARIANT CONSONANTAL SOUNDS	449	89	89	+ 0
03	SINGLE INITIAL CONSONANTS	418	93	94	+ 1
02	SINGLE INITIAL CONSONANTS	429	92	93	+ 1
	EVALUATIVE COMPREHENSION				
05	EVAL COMP - DISTINGUISH FANTASY AND REALISM	459	87	88	+ 1
	WORD RECOGNITION				
15	WORD RECOGNITION-BASIC SIGHT WORDS	388	96	84	- 12
06	WORD RECOGNITION-BASIC SIGHT WORDS	415	94	94	+ 0
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
12	ROOT WORDS	539	63	61	- 2
07	PLURAL NOUNS-INFLECTIONAL ENDINGS	538	63	63	+ 0
13	SUFFIXES	516	71	74	+ 3
	WORD MEANING				
08	WORD MEANING-CONTEXTUAL MEANING	406	95	95	+ 0
22	WORD MEANING-CONTEXTUAL MEANING	487	80	83	+ 3
	LITERAL COMPREHENSION				
09	LITERAL COMPREHENSION-SEQUENCE	479	82	82	+ 0
26	LITERAL COMPREHENSION-DETAILS	518	71	71	+ 0
14	LITERAL COMPREHENSION-MAIN IDEA	455	87	90	+ 3
25	LITERAL COMPREHENSION-DETAILS	509	74	77	+ 3
20	LITERAL COMPREHENSION-DETAILS	488	80	83	+ 3
	INTERPRETIVE COMPREHENSION				
10	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	423	93	93	+ 0
19	INTERPRETIVE COMPREHENSION-MAIN IDEA	500	77	79	+ 2
21	INTER COMP - CAUSE AND EFFECT	501	76	80	+ 4
	MULTIPLE WORD FORMS				
11	COMPOUND WORDS	470	84	92	+ 8
	PHONETIC ANALYSIS-VOWELS				
18	SHORT VOWEL SOUNDS	511	73	67	- 6
17	LONG VOWEL SOUNDS	527	67	67	+ 0
16	SHORT VOWEL SOUNDS	520	70	72	+ 2
	DICTIONARY				
23	ALPHABETIZING	509	74	74	+ 0
24	TABLE OF CONTENTS USE	434	91	87	- 4

Curriculum Match Profile - X = Expected; O = Observed

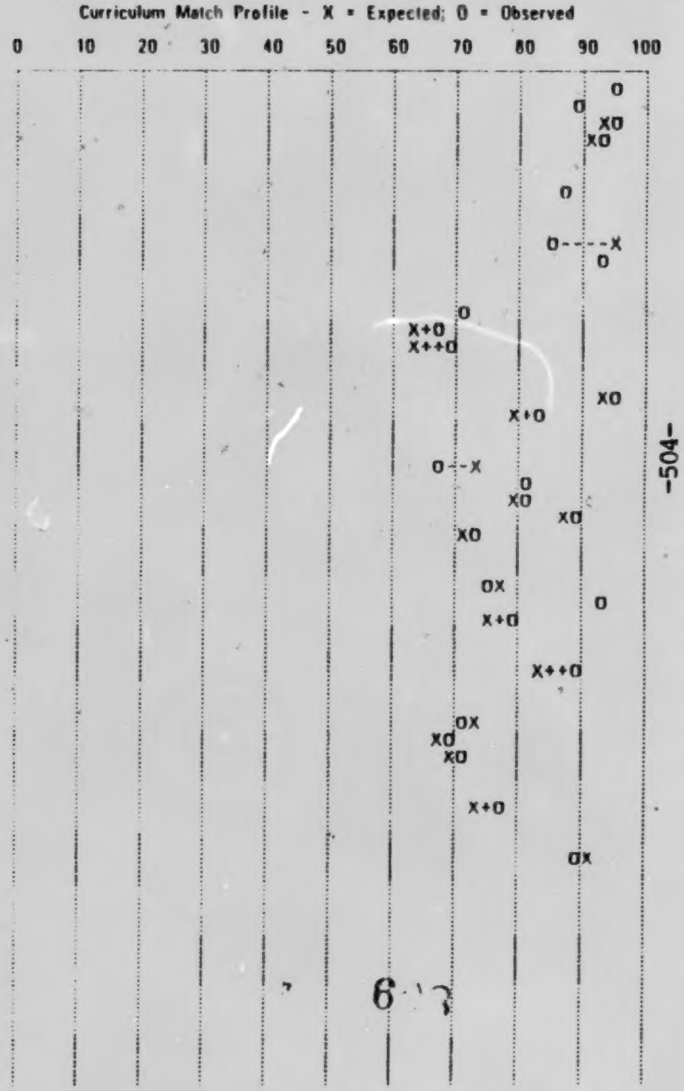


DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

PACIFIC READING 303 2,053 MAY-80 5 1 006-2936

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy
	PHONETIC ANALYSIS-CONSONANTS				
01	SINGLE INITIAL CONSONANTS	403	95	95	+ 0
04	VARIANT CONSONANTAL SOUNDS	449	89	90	+ 1
03	SINGLE INITIAL CONSONANTS	418	93	95	+ 2
02	SINGLE INITIAL CONSONANTS	429	92	94	+ 2
	EVALUATIVE COMPREHENSION				
05	EVAL COMP - DISTINGUISH FANTASY AND REALISM	459	87	87	+ 0
	WORD RECOGNITION				
15	WORD RECOGNITION-BASIC SIGHT WORDS	388	96	85	- 11
06	WORD RECOGNITION-BASIC SIGHT WORDS	415	93	94	+ 1
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS				
13	SUFFIXES	516	72	72	+ 0
12	ROOT WORDS	539	63	67	+ 4
07	PLURAL NOUNS-INFLECTIONAL ENDINGS	538	64	69	+ 5
	WORD MEANING				
08	WORD MEANING-CONTEXTUAL MEANING	406	94	95	+ 1
22	WORD MEANING-CONTEXTUAL MEANING	487	80	83	+ 3
	LITERAL COMPREHENSION				
25	LITERAL COMPREHENSION-DETAILS	509	74	68	- 6
09	LITERAL COMPREHENSION-SEQUENCE	479	82	81	- 1
20	LITERAL COMPREHENSION-DETAILS	488	80	81	+ 1
14	LITERAL COMPREHENSION-MAIN IDEA	455	87	89	+ 2
26	LITERAL COMPREHENSION-DETAILS	518	71	73	+ 2
	INTERPRETIVE COMPREHENSION				
19	INTERPRETIVE COMPREHENSION-MAIN IDEA	500	77	76	- 1
10	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	423	93	93	+ 0
21	INTER COMP - CAUSE AND EFFECT	501	76	79	+ 3
	MULTIPLE WORD FORMS				
11	COMPOUND WORDS	470	84	90	+ 6
	PHONETIC ANALYSIS-VOWELS				
18	SHORT VOWEL SOUNDS	511	73	71	- 2
17	LONG VOWEL SOUNDS	527	68	69	+ 1
16	SHORT VOWEL SOUNDS	520	70	72	+ 2
	DICTIONARY				
23	ALPHABETIZING	509	74	77	+ 3
24	TABLE OF CONTENTS USE	434	91	89	- 2



DEPARTMENT OF DEFENSE DEPENDENTS SCHOOLS

PANAMA READING 303 722 MAY-80 6 1 004-1196

BASIC SKILLS ASSESSMENT
Curriculum Match Report - Grade 3

Item No.	Skill Area/Item Descriptor	Calibrated Difficulty Value	Expected Percent Correct	Observed Percent Correct	Percent Discrepancy	Curriculum Match Profile - X = Expected; O = Observed (0 10 20 30 40 50 60 70 80 90 100)
	PHONETIC ANALYSIS-CONSONANTS					
02	SINGLE INITIAL CONSONANTS	429	93	93	+ 0	O
03	SINGLE INITIAL CONSONANTS	418	95	95	+ 0	O
01	SINGLE INITIAL CONSONANTS	403	96	97	+ 1	XO
04	VARIANT CONSONANTAL SOUNDS	449	91	92	+ 1	O
	EVALUATIVE COMPREHENSION					
05	EVAL COMP - DISTINGUISH FANTASY AND REALISM	459	89	82	- 7	O---X
	WORD RECOGNITION					
15	WORD RECOGNITION-BASIC SIGHT WORDS	388	97	84	- 13	O------X
06	WORD RECOGNITION-BASIC SIGHT WORDS	415	95	94	- 1	OX
	STRUCTURAL ANALYSIS-INDIVIDUAL WORD FORMS					
13	SUFFIXES	516	75	80	+ 5	X+O
07	PLURAL NOUNS-INFLECTIONAL ENDINGS	538	68	75	+ 7	X+++O
12	ROOT WORDS	539	68	76	+ 8	X+++O
	WORD MEANING					
08	WORD MEANING-CONTEXTUAL MEANING	406	96	97	+ 1	XO
22	WORD MEANING-CONTEXTUAL MEANING	487	83	84	+ 1	O
	LITERAL COMPREHENSION					
09	LITERAL COMPREHENSION-SEQUENCE	479	85	81	- 4	O-X
26	LITERAL COMPREHENSION-DETAILS	518	75	73	- 2	OX
20	LITERAL COMPREHENSION-DETAILS	488	83	82	- 1	OX
14	LITERAL COMPREHENSION-MAIN IDEA	455	90	90	+ 0	O
25	LITERAL COMPREHENSION-DETAILS	509	77	81	+ 4	X+O
	INTERPRETIVE COMPREHENSION					
10	INTERPRETIVE COMP.-IDENTIFYING OUTCOMES	423	94	91	- 3	OX
21	INTER COMP - CAUSE AND EFFECT	501	80	81	+ 1	XO
19	INTERPRETIVE COMPREHENSION-MAIN IDEA	500	80	82	+ 2	XO
	MULTIPLE WORD FORMS					
11	COMPOUND WORDS	470	87	93	+ 6	X++O
	PHONETIC ANALYSIS-VOWELS					
16	SHORT VOWEL SOUNDS	520	74	77	+ 3	X+O
18	SHORT VOWEL SOUNDS	511	77	81	+ 4	X+O
17	LONG VOWEL SOUNDS	527	72	78	+ 6	X++O
	DICTIONARY					
23	ALPHABETIZING	509	77	81	+ 4	X+O
24	TABLE OF CONTENTS USE	434	93	89	- 4	O-X

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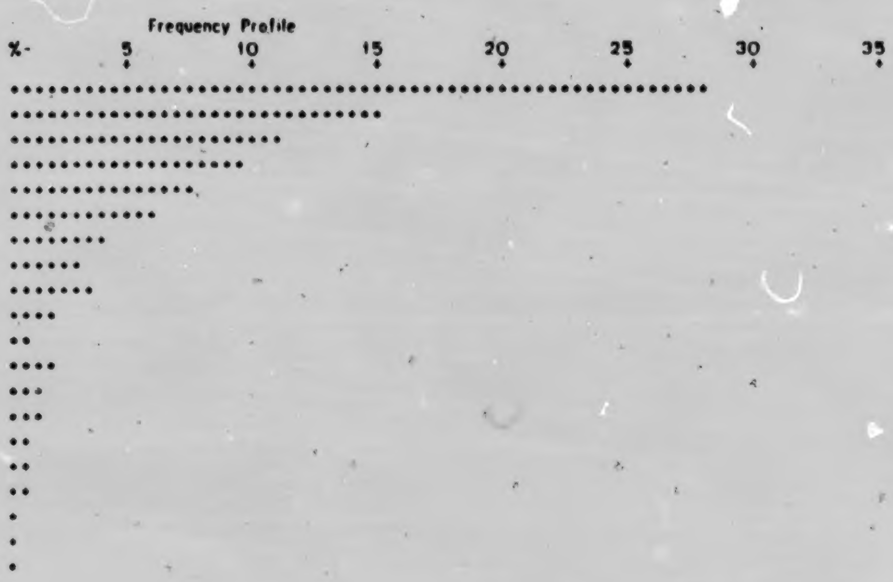
ATLANTIC READING 303 1393 MAY 80 1-0000 1 001-4281

Administrators' Summary - Grade 3

THIS GROUP:
MEAN 572.74
STANDARD DEVIATION 57.06

FIRST QUARTILE 538.82
MEDIAN 580.88
THIRD QUARTILE 636.61

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
637	391	28.06	391	28.06	86
602	209	15.00	600	43.06	64
581	156	11.19	756	54.25	51
565	131	9.40	887	63.65	41
551	103	7.39	990	71.04	33
539	81	5.81	1,071	76.85	26
528	59	4.23	1,130	81.08	21
518	44	3.15	1,174	84.23	17
509	46	3.30	1,220	87.53	14
500	27	1.93	1,247	89.46	11
491	17	1.22	1,264	90.68	10
482	27	1.93	1,291	92.61	08
474	22	1.57	1,313	94.18	07
465	19	1.36	1,332	95.54	05
456	13	.93	1,345	96.47	04
447	11	.78	1,356	97.25	03
438	15	1.07	1,371	98.32	02
428	7	.50	1,378	98.82	01
418	4	.28	1,382	99.10	01
406	5	.35	1,387	99.45	01
394	3	.21	1,390	99.66	01
380	2	.14	1,392	99.80	01
341	1	.07	1,393	99.87	01



GERMANY NORTH READING 300 4550 MAY 80 2-0000 1 003-3353

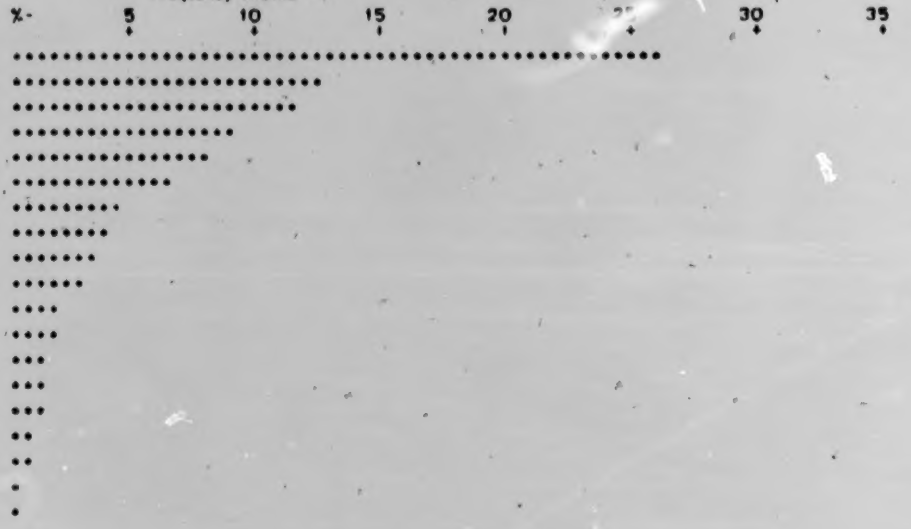
Administrators' Summary - Grade 3

THIS GROUP:
MEAN 567.38
STANDARD DEVIATION 57.97

FIRST QUARTILE 528.04
MEDIAN 565.46
THIRD QUARTILE 636.53

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
637	1175	25.82	1,175	25.82	87
602	572	12.57	1,747	38.39	68
581	513	11.27	2,260	49.66	56
565	410	9.01	2,670	58.67	46
551	361	7.93	3,031	66.60	37
539	285	6.26	3,316	72.86	30
528	212	4.65	3,528	77.51	25
518	187	4.10	3,715	81.61	20
509	152	3.34	3,867	84.95	17
500	139	3.05	4,006	88.00	13
491	102	2.24	4,108	90.24	11
482	84	1.84	4,192	92.08	09
474	72	1.58	4,264	93.66	07
465	58	1.27	4,322	94.93	06
456	60	1.31	4,382	96.24	04
447	46	1.01	4,428	97.25	03
438	44	.96	4,472	98.21	02
428	28	.61	4,500	98.82	01
418	21	.46	4,521	99.28	01
406	10	.21	4,531	99.49	01
394	4	.08	4,535	99.57	01
380	11	.24	4,546	99.81	01
363	3	.06	4,549	99.87	01
341	1	.02	4,550	99.89	01

Frequency Profile



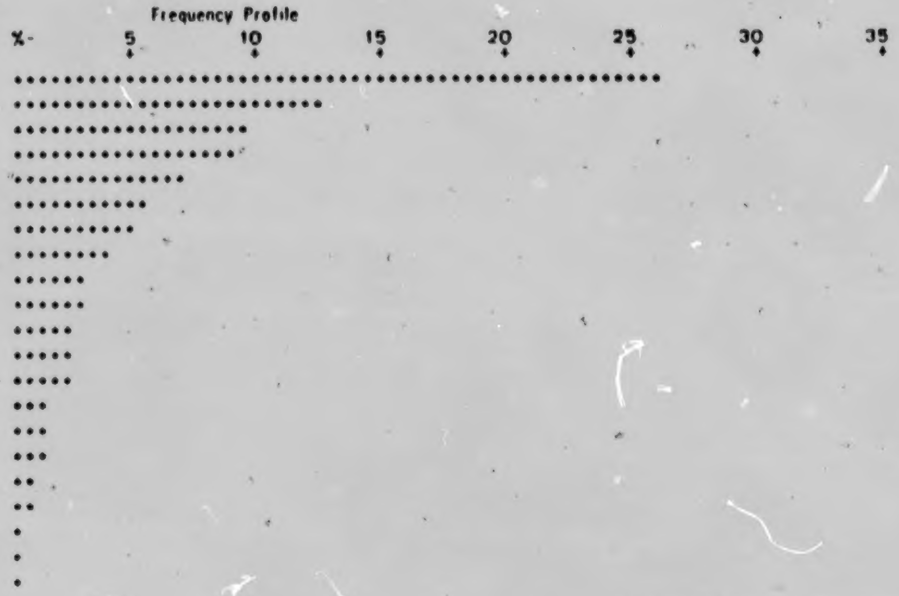
GERMANY SOUTH READING 303 3164 MAY 80 3-0000 1 001-3818

Administrators' Summary - Grade 3

THIS GROUP:
MEAN 564.69
STANDARD DEVIATION 61.18

FIRST QUARTILE 527.53
MEDIAN 565.31
THIRD QUARTILE 636.54

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
637	828	26.16	828	26.16	87
602	400	12.64	1,228	38.80	68
581	300	9.48	1,528	48.28	56
565	290	9.16	1,818	57.44	47
551	227	7.17	2,045	64.61	39
539	172	5.43	2,217	70.04	33
528	160	5.05	2,377	75.09	27
518	129	4.07	2,506	79.16	23
509	93	2.93	2,599	82.09	19
500	97	3.06	2,696	85.15	16
491	84	2.65	2,780	87.80	13
482	72	2.27	2,852	90.07	11
474	78	2.46	2,930	92.53	09
465	43	1.35	2,973	93.88	07
456	44	1.39	3,017	95.27	05
447	42	1.32	3,059	96.59	04
438	26	.82	3,085	97.41	03
428	27	.85	3,112	98.26	02
418	16	.50	3,128	98.76	02
406	14	.44	3,142	99.20	01
394	11	.34	3,153	99.54	01
380	5	.15	3,158	99.69	01
363	4	.12	3,162	99.81	01
306	2	.06	3,164	99.87	01



MEDITERRANEAN READING 303 1366 MAY 80 4-0000 1 006-5413

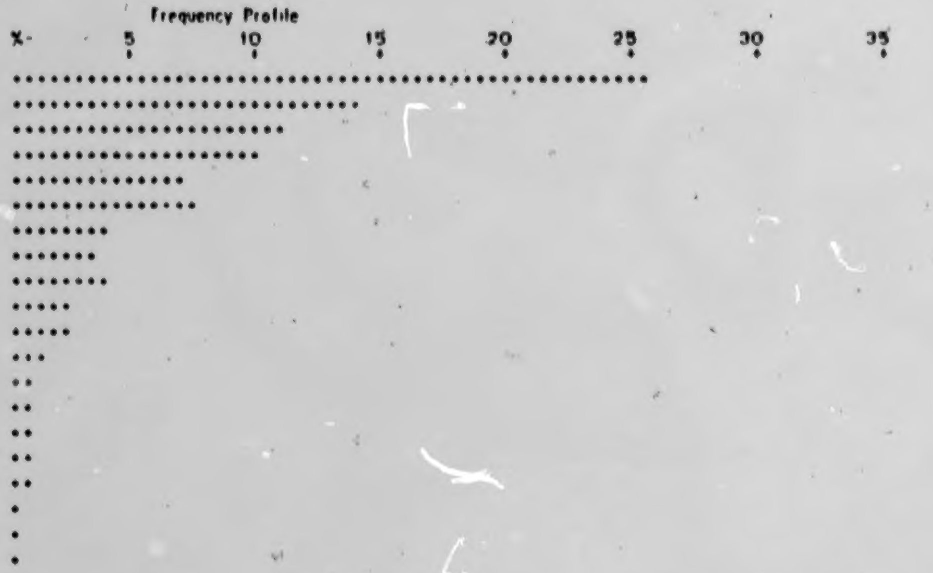
[illegible]

Administrators' Summary - Grade 3

THIS GROUP:
MEAN 568.82
STANDARD DEVIATION 56.70

FIRST QUARTILE 528.42
MEDIAN 580.53
THIRD QUARTILE 636.51

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
637	346	25.32	346	25.32	87
602	192	14.05	538	39.37	68
581	150	10.98	688	50.35	55
565	139	10.17	827	60.52	45
551	93	6.80	920	67.32	36
539	100	7.32	1,020	74.64	29
528	57	4.17	1,077	78.81	23
518	49	3.58	1,126	82.39	19
509	52	3.80	1,178	86.19	16
500	37	2.70	1,215	88.89	12
491	36	2.63	1,251	91.52	10
482	20	1.46	1,271	92.98	08
474	17	1.24	1,288	94.22	06
465	14	1.02	1,302	95.24	05
456	16	1.17	1,318	96.41	04
447	13	.95	1,331	97.36	03
438	12	.87	1,343	98.23	02
428	9	.65	1,352	98.88	01
418	6	.43	1,358	99.31	01
406	5	.36	1,363	99.67	01
380	1	.07	1,364	99.74	01
363	2	.14	1,366	99.88	01



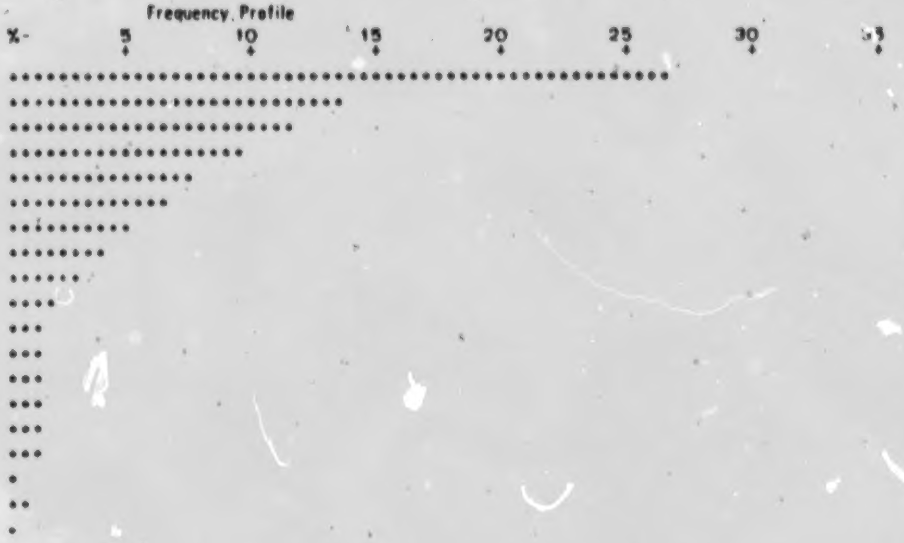
PACIFIC READING 303 2053 MAY 80 5-0000 1 008-2820

Administrators' Summary - Grade 3

THIS GROUP:
MEAN 569.53
STANDARD DEVIATION 57.78

FIRST QUARTILE 528.46
•MEDIAN 580.63
THIRD QUARTILE 636.55

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
637	543	26.44	543	26.44	87
602	279	13.58	822	40.02	67
581	235	11.44	1,057	51.46	54
565	195	9.49	1,252	60.95	44
551	153	7.45	1,405	68.40	35
539	131	6.38	1,536	74.78	28
528	106	5.16	1,642	79.94	23
518	84	4.09	1,726	84.03	18
509	60	2.92	1,786	86.95	14
500	36	1.75	1,822	88.70	12
491	34	1.65	1,856	90.35	10
482	29	1.41	1,885	91.76	09
474	30	1.46	1,915	93.22	07
465	30	1.46	1,945	94.68	06
456	29	1.41	1,974	96.09	05
447	26	1.26	2,000	97.35	03
438	12	.58	2,012	97.93	02
428	16	.77	2,028	98.70	02
418	11	.53	2,039	99.23	01
406	5	.24	2,044	99.47	01
394	3	.14	2,047	99.61	01
380	2	.09	2,049	99.70	01
363	1	.04	2,050	99.74	01
341	3	.14	2,053	99.88	01



PANAMA READING 303 722 MAY 80 6-0000 1 004-1198

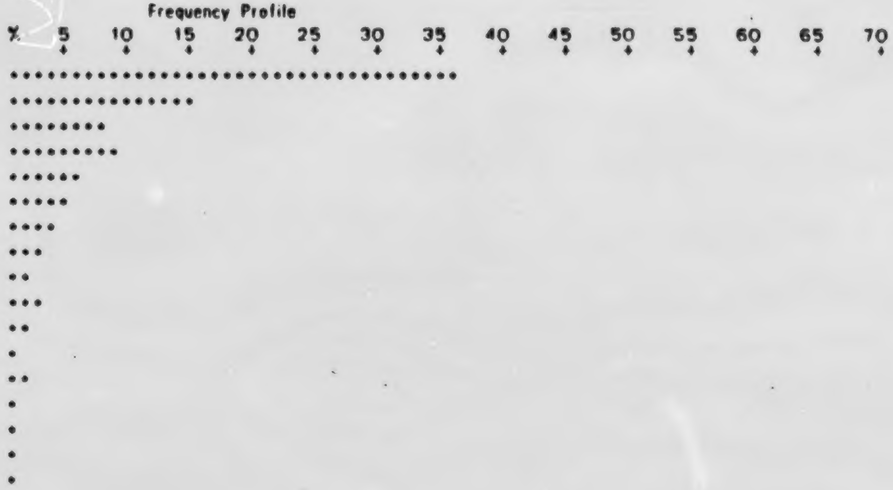
BASIC SKILLS AS [illegible] MENT

Administrators' Summary - Grade 3

THIS GROUP:
MEAN 581.02
STANDARD DEVIATION 55.77

FIRST QUARTILE 539.33
MEDIAN 601.56
THIRD QUARTILE 636.81

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
637	261	36.14	261	36.14	82
602	106	14.68	367	50.82	57
581	61	8.44	428	59.26	45
565	66	9.14	494	68.40	36
551	42	5.81	536	74.21	29
539	33	4.57	569	78.78	23
528	32	4.43	601	83.21	19
518	21	2.90	622	86.11	15
509	16	2.21	638	88.32	13
500	19	2.63	657	90.95	10
491	15	2.07	672	93.02	08
482	9	1.24	681	94.26	06
474	13	1.80	694	96.06	05
465	8	1.10	702	97.16	03
456	5	.69	707	97.85	02
447	4	.55	711	98.40	02
438	6	.83	717	99.23	01
428	3	.41	720	99.64	01
418	1	.13	721	99.77	01
363	1	.13	722	99.90	01



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712

READING 303 13248 MAY 80 0-0000 1 004-1198

[illegible]

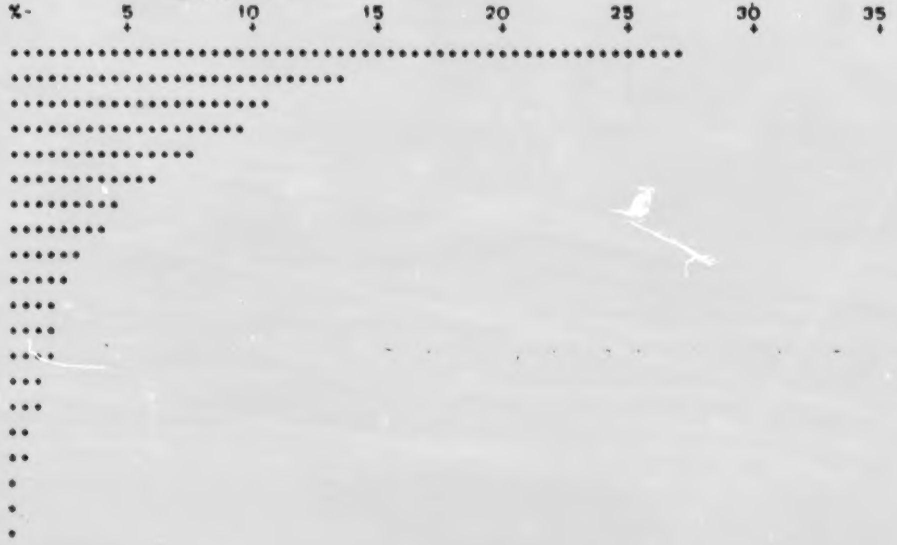
Administrators' Summary - Grade 3

THIS GROUP:
MEAN 568.53
STANDARD DEVIATION 58.50

FIRST QUARTILE 528.17
MEDIAN 580.57
THIRD QUARTILE 636.57

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
637	3544	26.75	3,544	26.75	87
602	1758	13.28	5,302	40.01	67
581	1415	10.68	6,717	50.69	55
565	1231	9.29	7,948	59.98	45
551	979	7.38	8,927	67.36	36
539	802	6.05	9,729	73.41	30
528	626	4.72	10,355	78.13	24
518	514	3.87	10,869	82.00	20
509	419	3.16	11,288	85.16	16
500	355	2.67	11,643	87.83	13
491	288	2.17	11,931	90.00	11
482	241	1.81	12,172	91.81	09
474	232	1.75	12,404	93.56	07
465	172	1.29	12,576	94.85	06
456	167	1.26	12,743	96.11	04
447	142	1.07	12,885	97.18	03
438	115	.86	13,000	98.04	02
428	90	.67	13,090	98.71	02
418	59	.44	13,149	99.15	01
406	39	.29	13,188	99.44	01
394	21	.15	13,209	99.59	01
380	21	.15	13,230	99.74	01
363	11	.08	13,241	99.82	01
341	5	.03	13,246	99.85	01
306	2	.01	13,248	99.86	01

Frequency Profile



ATLANTIC READING 304 1316 MAY 80 1-0000 1 001-4339

BASIC SKILLS ASSESSMENT

Administrators' Summary - Grade 4

THIS GROUP:
MEAN 552.13
STANDARD DEVIATION 50.33

FIRST QUARTILE 520.98
MEDIAN 555.53
THIRD QUARTILE 588.74

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank	Frequency Profile %- 2.5 5 7.5 10 12.5 15 17.5
650	101	7.67	101	7.67	96	•••••••••••••••••••••••••••••••
612	132	10.03	233	17.70	87	••
589	126	9.57	359	27.27	78	••••••••••••••••••••••••••••••••••••••
571	163	12.38	522	39.65	67	••
556	140	10.63	662	50.28	55	•••
543	152	11.55	814	61.83	44	••
531	118	8.96	932	70.79	34	••••••••••••••••••••••••••••••••••••
521	105	7.97	1,037	78.76	25	••••••••••••••••••••••••••••••••
511	64	4.86	1,101	83.62	19	•••••••••••••••••••
502	61	4.63	1,162	88.25	14	•••••••••••••••••••
493	37	2.81	1,199	91.06	10	•••••••••••
484	22	1.67	1,221	92.73	08	•••••••
475	20	1.51	1,241	94.24	06	••••••
467	20	1.51	1,261	95.75	05	••••••
458	12	.91	1,273	96.66	04	••••
449	12	.91	1,285	97.57	03	••••
441	10	.75	1,295	98.32	02	•••
431	8	.60	1,303	98.92	01	••
422	6	.45	1,309	99.37	01	••
412	3	.22	1,312	99.59	01	•
401	2	.15	1,314	99.74	01	•
388	2	.15	1,316	99.89	01	•

GERMANY NORTH READING 304 4000 MAY 80 2-0000 1 003-3368

BASIC SKILLS ASSESSMENT

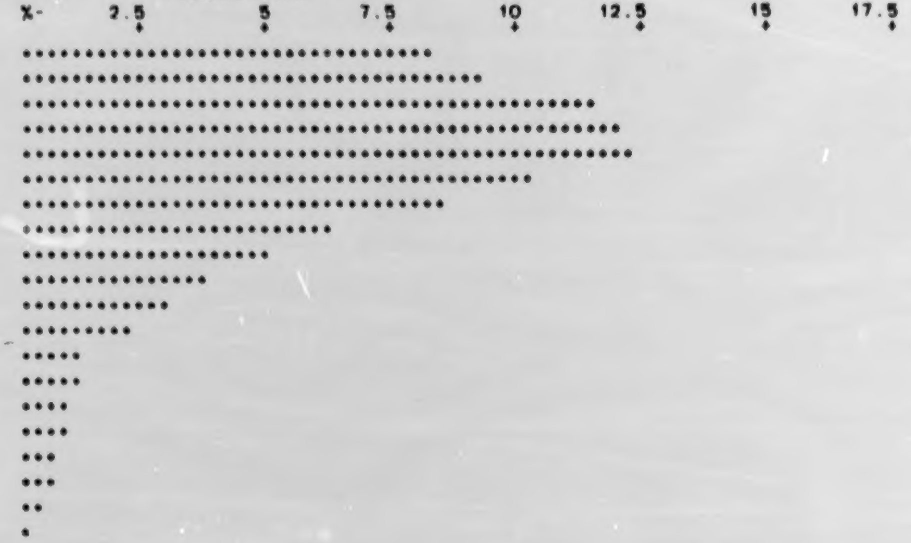
Administrators' Summary - Grade 4

THIS GROUP:
MEAN 553.43
STANDARD DEVIATION 51.24

FIRST QUARTILE 521.06
MEDIAN 555.79
THIRD QUARTILE 588.86

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
650	331	8.27	331	8.27	96
612	375	9.37	706	17.64	87
589	462	11.55	1,168	29.19	77
571	485	12.12	1,653	41.31	65
556	487	12.17	2,140	53.48	53
543	406	10.15	2,546	63.63	41
531	342	8.55	2,888	72.18	32
521	255	6.37	3,143	78.55	25
511	203	5.07	3,346	83.62	19
502	153	3.82	3,499	87.44	14
493	123	3.07	3,622	90.51	11
484	92	2.30	3,714	92.81	08
475	53	1.32	3,767	94.13	06
467	51	1.27	3,818	95.40	05
458	45	1.12	3,863	96.52	04
449	36	.90	3,899	97.42	03
441	32	.80	3,931	98.22	02
431	27	.67	3,958	98.89	01
422	22	.55	3,980	99.44	01
412	7	.17	3,987	99.61	01
401	4	.10	3,991	99.71	01
388	4	.10	3,995	99.81	01
374	3	.07	3,998	99.88	01
357	1	.02	3,999	99.90	01
299	1	.02	4,000	99.92	01

Frequency Profile



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GERMANY SOUTH READING 304 2825 MAY 80 3-0000 1 001-3824

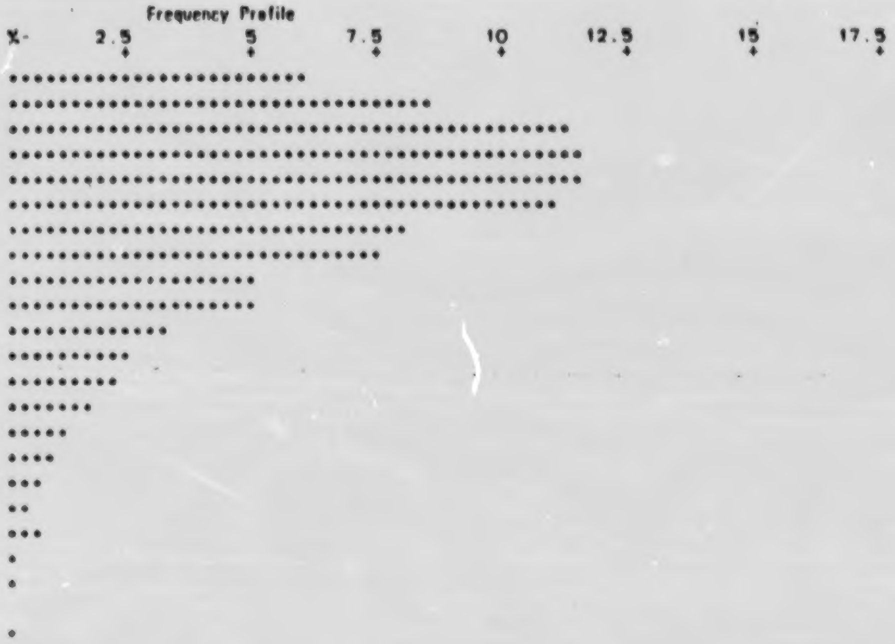
BASIC SKILLS ASSESSMENT

Administrators' Summary - Grade 4

THIS GROUP:
MEAN 548.02
STANDARD DEVIATION 50.19

FIRST QUARTILE 520.57
MEDIAN 543.41
THIRD QUARTILE 588.57

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
650	169	5.98	169	5.98	97
612	239	8.46	408	14.44	90
589	321	11.36	729	25.80	80
571	328	11.61	1,057	37.41	68
556	327	11.57	1,384	48.98	57
543	309	10.93	1,693	59.91	46
[illegible]	228	8.07	1,921	67.98	36
[illegible]	212	7.50	2,133	75.48	28
[illegible]	142	5.02	2,275	80.50	22
502	143	5.06	2,418	85.56	17
493	95	3.36	2,513	88.92	13
484	68	2.40	2,581	91.32	10
475	62	2.19	2,643	93.51	08
467	51	1.80	2,694	95.31	06
458	33	1.16	2,727	96.47	04
449	25	.88	2,752	97.35	03
441	22	.77	2,774	98.12	02
431	14	.49	2,788	98.61	01
422	19	.67	2,807	99.28	01
412	6	.21	2,813	99.49	01
401	4	.14	2,817	99.63	01
388	2	.07	2,819	99.70	01
374	6	.21	2,825	99.91	01



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MEDITERRANEAN READING 304 1247 MAY 80 4-0000 1 006-5487

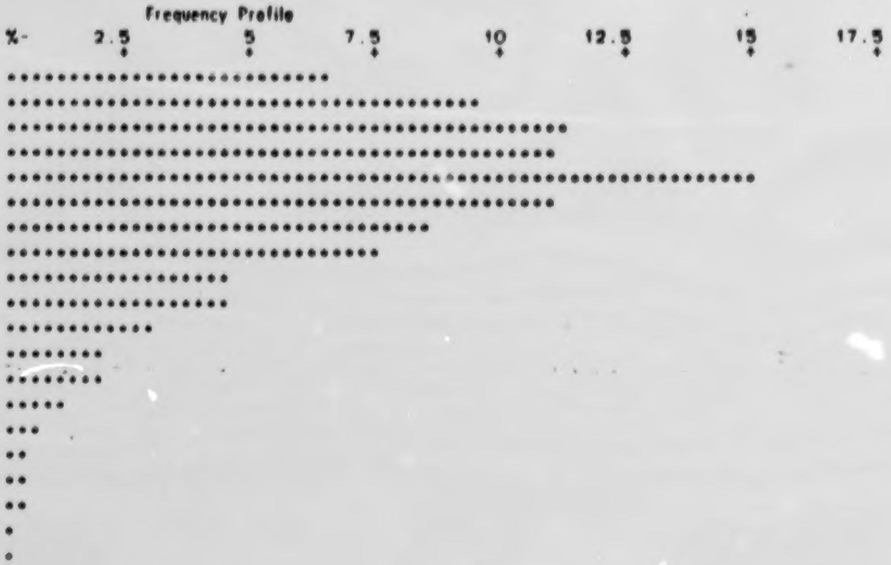
BASIC SKILLS ASSESSMENT

Administrators' Summary - Grade 4

THIS GROUP:
MEAN 553.06
STANDARD DEVIATION 47.21

FIRST QUARTILE 521.18
MEDIAN 555.72
THIRD QUARTILE 588.70

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
650	82	6.57	82	6.57	97
612	119	9.54	201	16.11	89
589	139	11.14	340	27.25	78
571	136	10.90	476	38.15	67
556	188	15.07	664	53.22	54
543	136	10.90	800	64.12	41
531	105	8.42	905	72.54	32
521	94	7.53	999	80.07	24
511	57	4.57	1,056	84.64	18
502	55	4.41	1,111	89.05	13
493	37	2.96	1,148	92.01	09
484	25	2.00	1,173	94.01	07
475	25	2.00	1,198	96.01	05
467	15	1.20	1,213	97.21	03
458	10	.80	1,223	98.01	02
449	6	.48	1,229	98.49	01
441	6	.48	1,235	98.97	01
431	5	.40	1,240	99.37	01
422	3	.24	1,243	99.61	01
412	2	.16	1,245	99.77	01
401	1	.08	1,246	99.85	01
388	1	.08	1,247	99.93	01



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PACIFIC READING 304 1822 MAY 80 5-0000 1 C06-3000

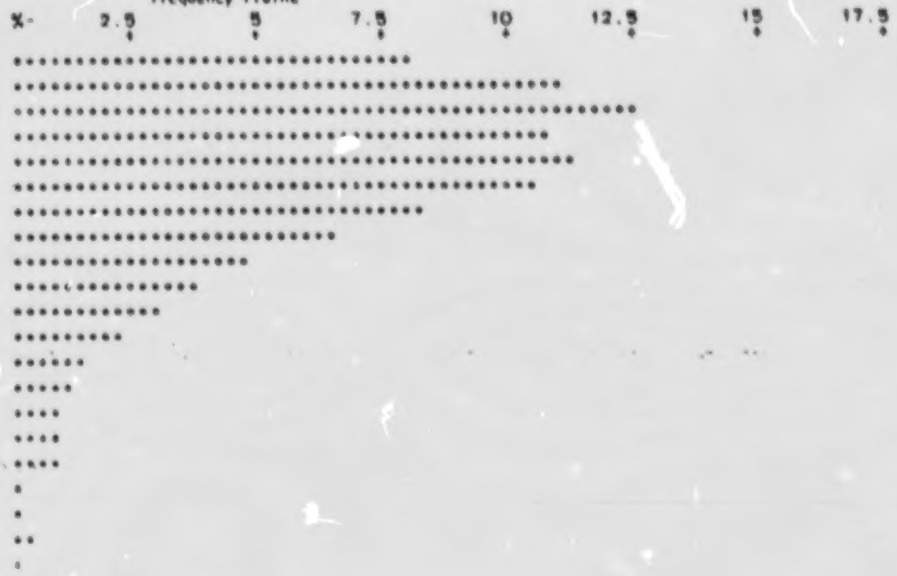
Administrators' Summary - Grade 4

THIS GROUP:
MEAN 554.19
STANDARD DEVIATION 51.93

FIRST QUARTILE 521.09
MEDIAN 555.82
THIRD QUARTILE 589.02

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
650	146	8.01	146	8.01	96
612	201	11.03	347	19.04	86
589	228	12.51	575	31.55	75
571	196	10.75	771	42.30	63
556	206	11.30	977	53.60	52
543	192	10.53	1,169	64.13	41
531	150	8.23	1,319	72.36	32
521	117	6.42	1,436	78.78	24
511	86	4.72	1,522	83.50	19
502	69	3.78	1,591	87.28	15
493	56	3.07	1,647	90.35	11
484	42	2.30	1,689	92.65	08
475	27	1.48	1,716	94.13	07
467	22	1.20	1,738	95.33	05
458	18	.98	1,756	96.31	04
449	19	1.04	1,775	97.35	03
441	20	1.09	1,795	98.44	02
431	6	.32	1,801	98.76	01
422	5	.27	1,806	99.03	01
412	7	.38	1,813	99.41	01
401	3	.16	1,816	99.57	01
388	2	.10	1,818	99.67	01
374	2	.10	1,820	99.77	01
357	1	.05	1,821	99.82	01
335	1	.05	1,822	99.87	01

Frequency Profile



BASIC SKILLS ASSESSMENT

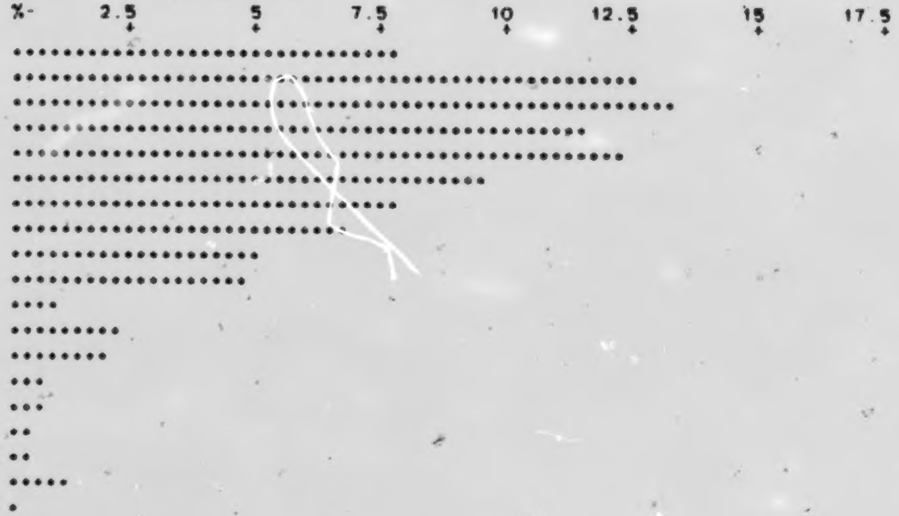
Administrators' Summary - Grade 4

THIS GROUP:
MEAN 557.68
STANDARD DEVIATION 49.08

FIRST QUARTILE 521.39
MEDIAN 556.08
THIRD QUARTILE 589.14

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
650	53	7.65	53	7.65	96
612	87	12.57	140	20.22	86
589	91	13.15	231	33.37	73
571	79	11.41	310	44.78	61
556	85	12.28	395	57.06	49
543	65	9.39	460	66.45	38
531	54	7.80	514	74.25	30
521	46	6.64	560	80.89	22
511	35	5.05	595	85.94	17
502	33	4.76	628	90.70	12
493	7	1.01	635	91.71	09
484	16	2.31	651	94.02	07
475	14	2.02	665	96.04	05
467	5	.72	670	96.76	04
458	5	.72	675	97.48	03
449	4	.57	679	98.05	02
441	3	.43	682	98.48	02
431	9	1.30	691	99.78	01
401	1	.14	692	99.92	01

Frequency Profile



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725

READING 304 11902 MAY 80 0-0000 1 004-1236

[illegible]KILLS A[illegible]

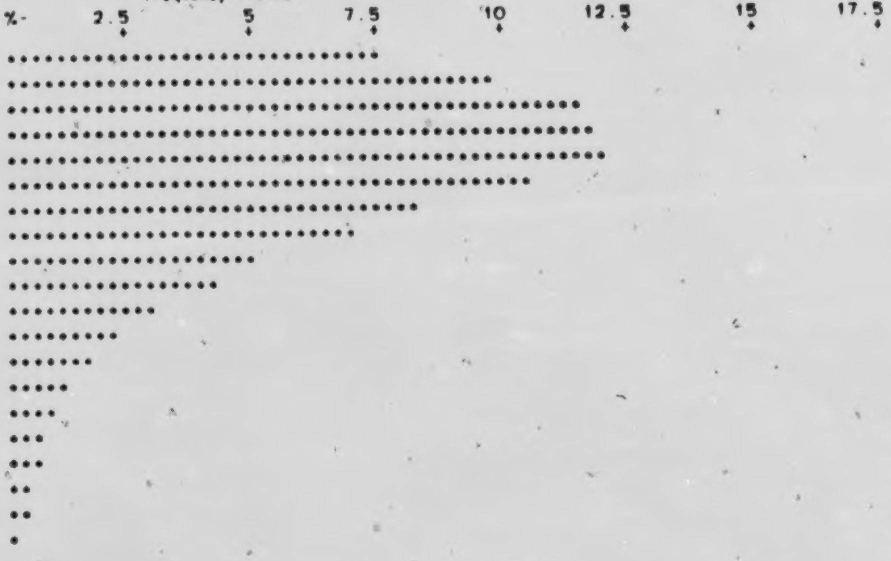
Administrators' Summary - Grade 4

THIS GROUP:
MEAN 552.33
STANDARD DEVIATION 50.53

FIRST QUARTILE 520.96
MEDIAN 555.69
THIRD QUARTILE 588.81

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
650	882	7.41	882	7.41	96
612	1153	9.68	2.035	17.09	88
589	1367	11.48	3,402	28.57	77
571	1387	11.65	4,789	40.22	66
556	1433	12.03	6,222	52.25	54
543	1260	10.58	7,482	62.83	42
531	997	8.37	8,479	71.20	33
521	829	6.96	9,308	78.16	25
511	587	4.93	9,895	83.09	19
502	514	4.31	10,409	87.40	15
493	355	2.98	10,764	90.38	11
484	265	2.22	11,029	92.60	08
475	201	1.68	11,230	94.28	06
467	164	1.37	11,394	95.65	05
458	123	1.03	11,517	96.68	04
449	102	.85	11,619	97.53	03
441	93	.78	11,712	98.31	02
431	69	.57	11,781	98.88	01
422	55	.46	11,836	99.34	01
412	25	.21	11,861	99.55	01
401	15	.12	11,876	99.67	01
388	11	.09	11,887	99.76	01
374	11	.09	11,898	99.85	01
357	2	.01	11,900	99.86	01
335	1	.00	11,901	99.86	01
299	1	.00	11,902	99.86	01

Frequency Profile



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Administrators' Summary - Grade 6

THIS GROUP:
MEAN 594.11
STANDARD DEVIATION 50.60

FIRST QUARTILE 558.08
MEDIAN 591.17
THIRD QUARTILE 623.28

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank	Frequency Profile %- 2.5 5 7.5 10 12.5 15 17.5
681	118	11.10	118	11.10	94	••
646	115	10.81	233	21.91	83	•••
623	146	13.73	379	35.64	71	•••
606	120	11.28	499	46.92	59	•••
591	99	9.31	598	56.23	48	•••••••••••••••••••••••••••••••••••••
579	94	8.84	692	65.07	39	•••••••••••••••••••••••••••••••••••
568	73	6.86	765	71.93	31	•••••••••••••••••••••••••••
558	76	7.14	841	79.07	24	•••••••••••••••••••••••••••••
548	53	4.98	894	84.05	18	••••••••••••••••••••
539	41	3.85	935	87.90	14	•••••••••••••••
530	32	3.01	967	90.91	11	••••••••••••
521	35	3.29	1,002	94.20	07	•••••••••••••
512	24	2.25	1,026	96.43	05	•••••••••
503	5	.47	1,031	96.92	03	••
495	10	.94	1,041	97.86	03	••••
486	7	.65	1,048	98.51	02	•••
477	5	.47	1,053	98.98	01	••
467	3	.28	1,056	99.26	01	•
457	3	.28	1,059	99.54	01	•
446	2	.18	1,061	99.72	01	•
433	2	.18	1,063	99.90	01	•

GERMANY NORTH READING 306 3002 MAY 80 2-0000 1 003-3385

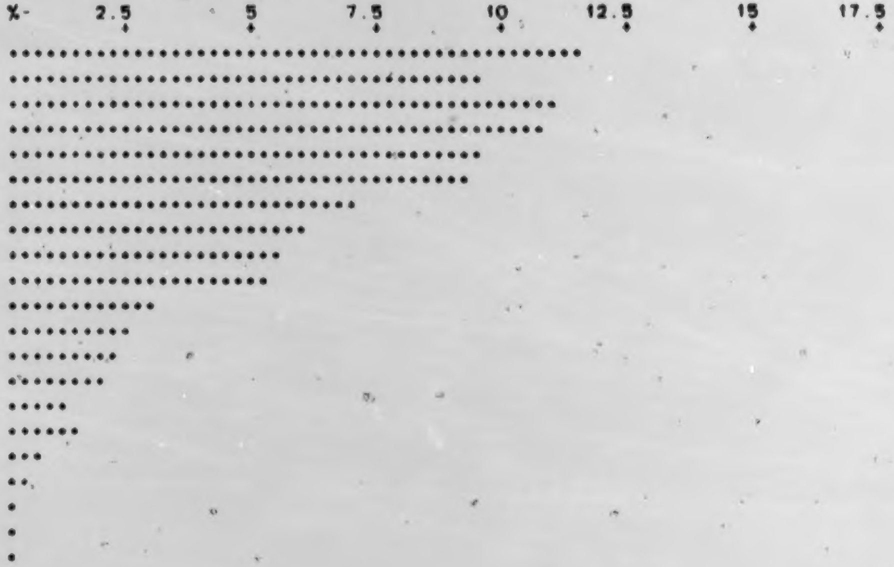
Administrators Summary - Grade 6

THIS GROUP:
MEAN 589.37
STANDARD DEVIATION 53.73

FIRST QUARTILE 548.47
MEDIAN 590.75
THIRD QUARTILE 623.14

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
661	345	11.49	345	11.49	94
646	288	9.59	633	21.08	84
623	328	10.92	961	32.00	73
606	326	10.85	1,287	42.85	63
591	286	9.52	1,573	52.37	52
579	279	9.29	1,852	61.66	43
568	214	7.12	2,066	68.78	35
558	180	5.99	2,246	74.77	28
548	164	5.46	2,410	80.23	22
539	157	5.22	2,567	85.45	17
530	87	2.89	2,654	88.34	13
521	78	2.59	2,732	90.93	10
512	67	2.23	2,799	93.16	08
503	58	1.93	2,857	95.09	06
495	35	1.16	2,892	96.25	04
486	43	1.43	2,935	97.68	03
477	22	.73	2,957	98.41	02
467	18	.59	2,975	99.00	01
457	11	.36	2,986	99.36	01
446	6	.19	2,992	99.55	01
433	8	.26	3,000	99.81	01
420	1	.03	3,001	99.84	01
403	1	.03	3,002	99.87	01

Frequency Profile



GERMANY SOUTH READING 306 2142 MAY 80 3-0000 1 001-3833

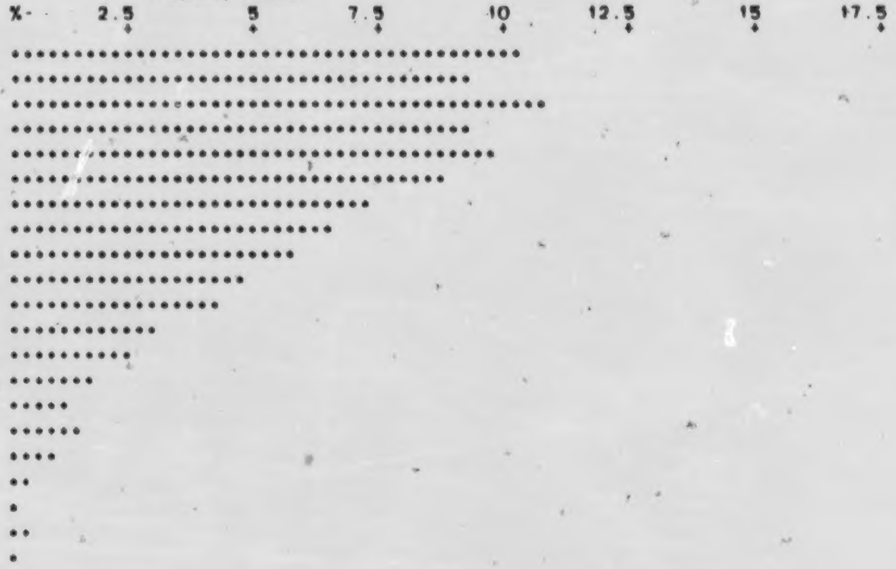
Administrators' Summary - Grade 6

THIS GROUP:
MEAN 585.30
STANDARD DEVIATION 54.70

FIRST QUARTILE 548.00
MEDIAN 579.44
THIRD QUARTILE 622.99

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
681	221	10.31	221	10.31	95
646	198	9.24	419	19.55	85
623	229	10.69	648	30.24	75
606	200	9.33	848	39.57	65
591	211	9.85	1,059	49.42	55
579	188	8.77	1,247	58.19	48
568	157	7.32	1,404	65.51	38
558	142	6.62	1,546	72.13	31
548	121	5.64	1,667	77.77	25
539	103	4.80	1,770	82.57	20
530	93	4.34	1,863	86.91	15
521	63	2.94	1,926	89.85	12
512	54	2.52	1,980	92.37	09
503	37	1.72	2,017	94.09	07
495	29	1.35	2,046	95.44	05
486	31	1.44	2,077	96.88	04
477	23	1.07	2,100	97.95	02
467	13	.60	2,113	98.55	02
457	8	.37	2,121	98.92	01
446	11	.51	2,132	99.43	01
433	6	.28	2,138	99.71	01
420	2	.09	2,140	99.80	01
403	2	.09	2,142	99.89	01

Frequency Profile



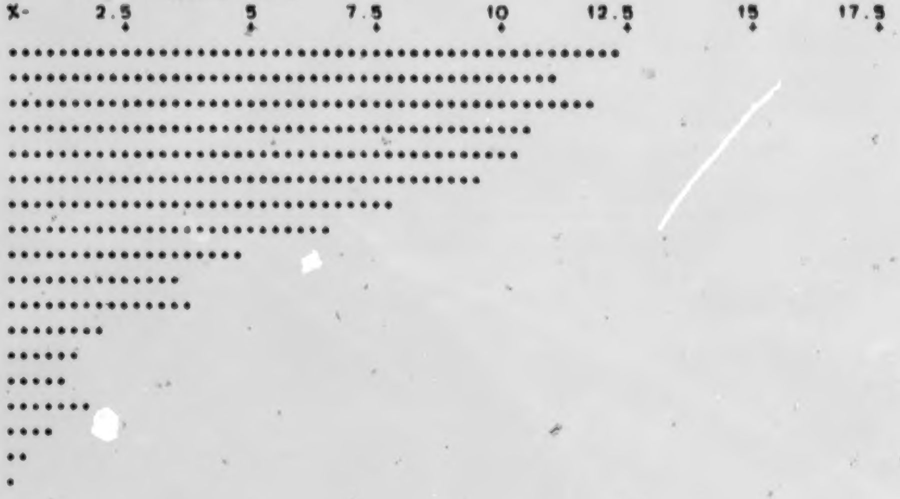
Administrators' Summary - Grade 6

THIS GROUP:
MEAN 594.38
STANDARD DEVIATION 51.35

FIRST QUARTILE 558.18
MEDIAN 591.05
THIRD QUARTILE 623.35

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
681	132	12.29	132	12.29	94
646	118	10.98	250	23.27	82
623	125	11.63	375	34.90	71
606	112	10.42	487	45.32	60
591	111	10.33	598	55.65	49
579	102	9.49	700	65.14	40
568	82	7.63	782	72.77	31
558	70	6.51	852	79.28	24
548	51	4.74	903	84.02	18
539	38	3.53	941	87.55	14
530	40	3.72	981	91.27	11
521	21	1.95	1,002	93.22	08
512	17	1.58	1,019	94.80	06
503	13	1.21	1,032	96.01	05
495	19	1.76	1,051	97.77	03
486	12	1.11	1,063	98.88	02
477	5	.46	1,068	99.34	01
467	4	.37	1,072	99.71	01
457	1	.09	1,073	99.80	01
446	1	.09	1,074	99.89	01

Frequency Profile



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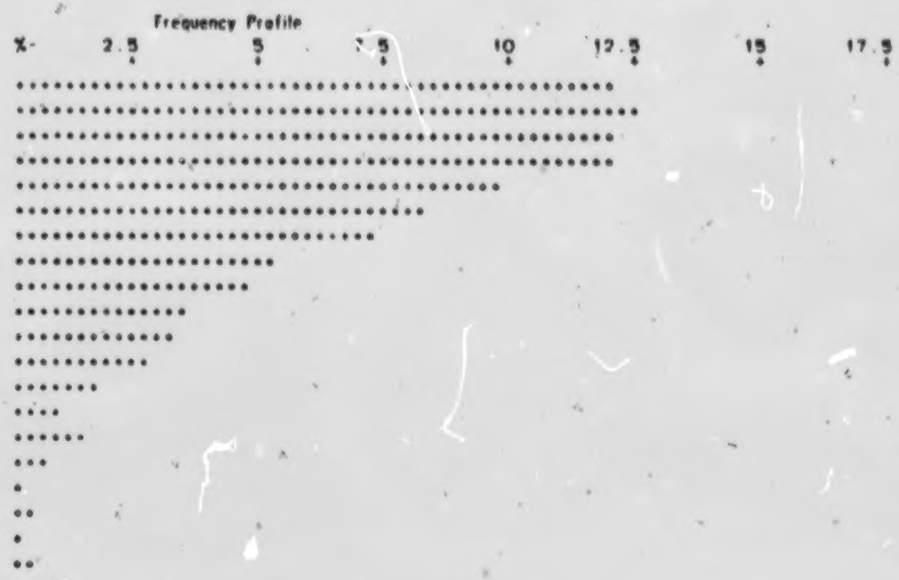
PACIFIC READING 306 1438 MAY 80 5-0000 1 004-6947

Administrators' Summary - Grade 6

THIS GROUP:	
MEAN	595.51
STANDARD DEVIATION	51.98

FIRST QUARTILE	558.28
MEDIAN	591.34
THIRD QUARTILE	623.45

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
681	172	11.96	172	11.96	94
646	179	12.44	351	24.40	82
623	173	12.03	524	36.43	70
606	173	12.03	697	48.46	58
591	141	9.80	838	58.26	47
579	120	8.34	958	66.60	38
568	104	7.23	1,062	73.83	30
558	74	5.14	1,136	78.97	24
548	69	4.79	1,205	83.76	19
539	51	3.56	1,256	87.30	14
530	48	3.33	1,304	90.63	11
521	41	2.85	1,345	93.48	08
512	24	1.66	1,369	95.14	06
503	14	.97	1,383	96.11	04
495	23	1.59	1,406	97.70	03
486	10	.69	1,416	98.39	02
477	3	.20	1,419	98.59	02
467	7	.48	1,426	99.07	01
457	5	.34	1,431	99.41	01
446	7	.48	1,438	99.89	01



737

738

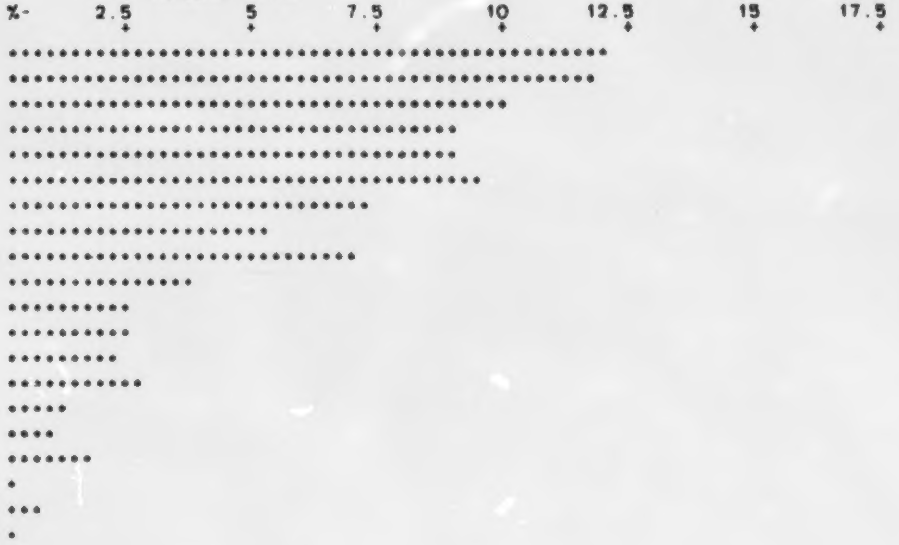
Administrators' Summary - Grade 6

THIS GROUP:
MEAN 589.90
STANDARD DEVIATION 55.25

FIRST QUARTILE 548.31
MEDIAN 590.72
THIRD QUARTILE 623.39

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
681	69	12.02	69	12.02	94
646	68	11.84	137	23.86	82
623	58	10.10	195	33.96	71
606	52	9.05	247	43.01	61
591	51	8.88	298	51.89	53
579	54	9.40	352	61.29	43
568	41	7.14	393	68.47	35
558	30	5.22	423	73.69	29
548	40	6.96	463	80.61	23
539	22	3.83	485	84.44	17
530	15	2.61	500	87.05	14
521	15	2.61	515	89.66	12
512	13	2.26	528	91.92	09
503	16	2.78	544	94.70	07
495	7	1.21	551	95.91	05
486	6	1.04	557	96.95	03
477	10	1.74	567	98.69	02
467	2	.34	569	99.03	01
457	4	.69	573	99.72	01
446	1	.17	574	99.89	01

Frequency Profile



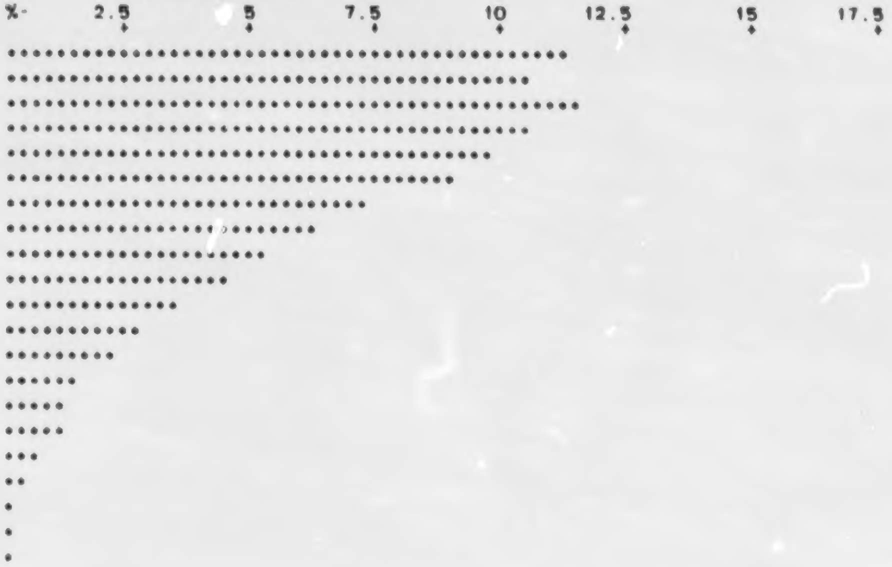
Administrators' Summary - Grade 6

THIS GROUP:
MEAN 590.54
STANDARD DEVIATION 53.28

FIRST QUARTILE 557.63
MEDIAN 590.85
THIRD QUARTILE 623.22

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
681	1057	11.37	1,057	11.37	94
646	966	10.39	2,023	21.76	83
623	1059	11.39	3,082	33.15	73
606	983	10.57	4,065	43.72	62
591	899	9.67	4,964	53.39	51
579	837	9.00	5,801	62.39	42
568	671	7.22	6,472	69.61	34
558	572	6.15	7,044	75.76	27
548	498	5.35	7,542	81.11	22
539	412	4.43	7,954	85.54	17
530	315	3.38	8,269	88.92	13
521	253	2.72	8,522	91.64	10
512	199	2.14	8,721	93.78	07
503	143	1.53	8,864	95.31	05
495	123	1.32	8,987	96.63	04
486	109	1.17	9,096	97.80	03
477	68	.73	9,164	98.53	02
467	47	.50	9,211	99.03	01
457	32	.34	9,243	99.37	01
446	28	.30	9,271	99.67	01
433	16	.17	9,287	99.84	01
420	3	.03	9,290	99.87	01
403	3	.03	9,293	99.90	01

Frequency Profile



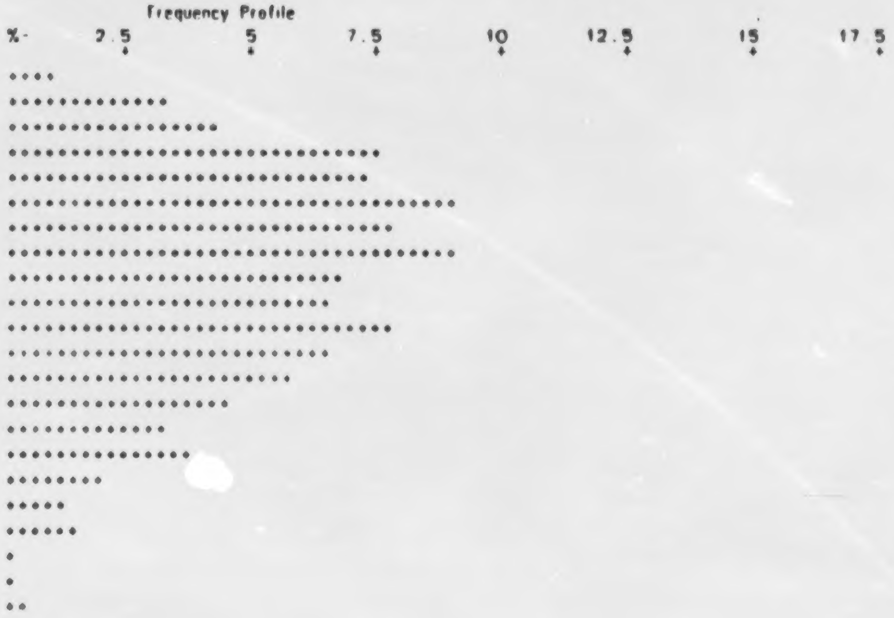
ATLANTIC READING 309 929 MAY 80 1-0000 1 003-3467

Administrators' Summary - Grade 9

THIS GROUP:
MEAN 620.77
STANDARD DEVIATION 42.13

FIRST QUARTILE 592.74
MEDIAN 617.37
THIRD QUARTILE 645.30

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
743	10	1.07	10	1.07	99
708	30	3.22	40	4.29	97
687	40	4.30	80	8.59	94
670	69	7.42	149	16.01	88
657	67	7.21	216	23.22	80
645	83	8.93	299	32.15	72
635	73	7.85	372	40.00	64
626	84	9.04	456	49.04	55
617	63	6.78	519	55.82	48
608	60	6.45	579	62.27	41
600	72	7.75	651	70.02	34
593	60	6.45	711	76.47	27
585	54	5.81	765	82.28	21
578	43	4.62	808	86.90	15
570	31	3.33	839	90.23	11
563	36	3.87	875	94.10	08
555	19	2.04	894	96.14	05
547	11	1.18	905	97.32	03
539	15	1.61	920	98.93	02
531	2	.21	922	99.14	01
522	2	.21	924	99.35	01
512	5	.53	929	99.88	01


Frequency Profile

GERMANY NORTH READING 309 2240 MAY 80 2-0000 1 001-8803

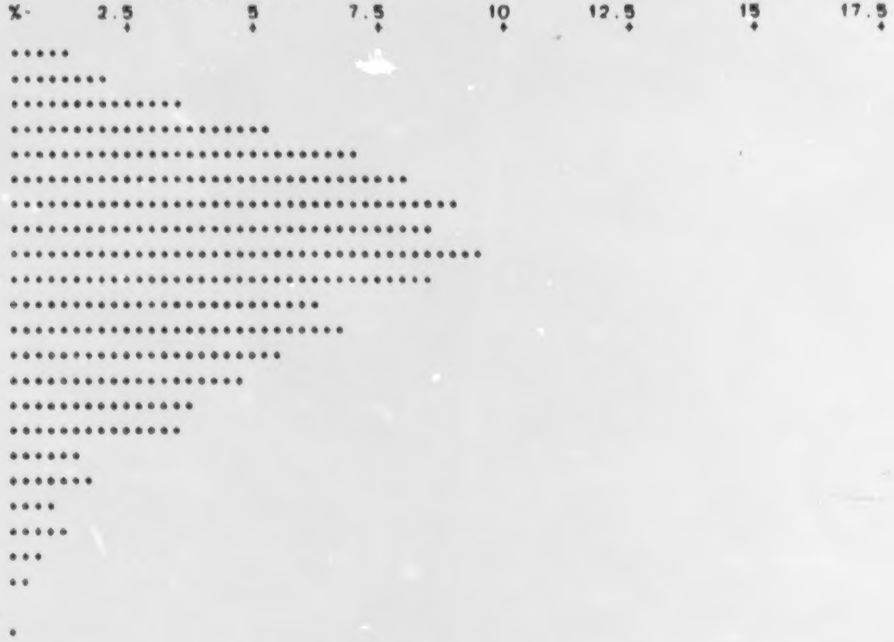
Administrators' Summary - Grade 9

THIS GROUP:
MEAN 616.36
STANDARD DEVIATION 41.68

FIRST QUARTILE 592.53
MEDIAN 616.89
THIRD QUARTILE 644.73

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
743	26	1.16	26	1.16	99
708	43	1.91	69	3.07	98
687	79	3.52	148	6.59	95
670	116	5.17	264	11.76	91
657	156	6.96	420	18.72	85
645	182	8.12	602	26.84	77
635	201	8.97	803	35.81	69
626	188	8.39	991	44.20	60
617	211	9.41	1,202	53.61	51
608	192	8.57	1,394	62.18	42
600	139	6.20	1,533	68.38	35
593	151	6.74	1,684	75.12	28
585	124	5.53	1,808	80.65	22
578	109	4.86	1,917	85.51	17
570	86	3.83	2,003	89.34	13
563	79	3.52	2,082	92.86	09
555	35	1.56	2,117	94.42	06
547	41	1.83	2,158	96.25	05
539	20	.89	2,178	97.14	03
531	26	1.16	2,204	98.30	02
522	18	.80	2,222	99.10	01
512	11	.49	2,233	99.59	01
501	1	.04	2,234	99.63	01
489	3	.13	2,237	99.76	01
476	1	.04	2,238	99.80	01
437	2	.08	2,240	99.88	01

Frequency Profile



GERMANY SOUTH READING 309 1661 MAY 80 3-0000 1 004-8993

Administrators' Summary - Grade 9

THIS GROUP:			
MEAN	612.70	FIRST QUARTILE	584.82
STANDARD DEVIATION	42.28	*MEDIAN	608.44
		THIRD QUARTILE	635.40

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank	Frequency Profile %- 2.5 5 7.5 10 12.5 15 17.5
743	17	1.02	17	1.02	99	••••
708	40	2.40	57	3.42	98	••••••••••
687	42	2.52	99	5.94	95	••••••••••
670	80	4.81	179	10.75	92	•••••••••••••••••••
657	105	6.32	284	17.07	86	•••••••••••••••••••••••••
645	118	7.10	402	24.17	79	••••••••••••••••••••••••••••
635	138	8.30	540	32.47	72	•••••••••••••••••••••••••••••••••
626	131	7.88	671	40.35	64	••••••••••••••••••••••••••••••••
617	153	9.21	824	49.56	55	•••••••••••••••••••••••••••••••••••••
608	118	7.10	942	56.66	47	••••••••••••••••••••••••••••
600	139	8.36	1,081	65.02	39	•••••••••••••••••••••••••••••••••
593	93	5.59	1,174	70.61	32	••••••••••••••••••••••
585	105	6.32	1,279	76.93	26	•••••••••••••••••••••••••
578	100	6.02	1,379	82.95	20	••••••••••••••••••••••••
570	69	4.15	1,448	87.10	15	•••••••••••••••••
563	65	3.91	1,513	91.01	11	••••••••••••••••
555	36	2.16	1,549	93.17	08	•••••••••
547	37	2.22	1,586	95.39	06	•••••••••
539	25	1.50	1,611	96.89	04	••••••
531	22	1.32	1,633	98.21	02	•••••
522	13	.78	1,646	98.99	01	•••
512	8	.48	1,654	99.47	01	••
501	6	.36	1,660	99.83	01	•
459	1	.06	1,661	99.89	01	

-529-

MEDITERRANEAN READING 309 571 MAY 80 4-0000 006-5763

[illegible] SKILLS AS[illegible]

Administrators' Summary - Grade 9

THIS GROUP:
MEAN 614.80
STANDARD DEVIATION 39.22

FIRST QUARTILE 585.29
• MEDIAN 616.78
THIRD QUARTILE 635.45

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank	Frequency Profile %- 2.5 5 7.5 10 12.5 15 17.5
743	7	1.22	7	1.22	99	•••••
708	4	.70	11	1.92	98	•••
687	12	2.10	23	4.02	97	••••••••
670	36	6.30	59	10.32	93	•••••••••••••••••••••••••
657	33	5.77	92	16.09	87	•••••••••••••••••••••••
645	48	8.40	140	24.49	80	••••••••••••••••••••••••••••••••••
635	59	10.33	199	34.82	70	•••
626	50	8.75	249	43.57	61	•••••••••••••••••••••••••••••••••••
617	51	8.93	300	52.50	52	••••••••••••••••••••••••••••••••••••
608	52	9.10	352	61.60	43	••••••••••••••••••••••••••••••••••••
600	38	6.65	390	68.25	35	•••••••••••••••••••••••••••
593	31	5.42	421	73.67	29	••••••••••••••••••••••
585	34	5.95	455	79.62	23	••••••••••••••••••••••••
578	32	5.60	487	85.22	18	••••••••••••••••••••••
570	22	3.85	507	89.07	13	•••••••••••••••
563	23	4.02	532	93.09	09	••••••••••••••••
555	9	1.57	541	94.66	06	••••••
547	12	2.10	553	96.76	04	••••••••
539	7	1.22	560	97.98	03	•••••
531	6	1.05	566	99.03	01	••••
522	3	.52	569	99.55	01	••
512	2	.35	571	99.90	01	•

PACIFIC READING 309 977 MAY 80 5-0000 1 008-8175

BASIC SKILLS ASSESSMENT

Administrators' Summary - Grade 9

THIS GROUP:
MEAN 619.58
STANDARD DEVIATION 41.28

FIRST QUARTILE 593.03
MEDIAN 617.18
THIRD QUARTILE 644.95

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank	Frequency Profile %- 2.5 5 7.5 10 12.5 15 17.5
743	13	1.33	13	1.33	99	•••••
708	23	2.35	36	3.68	97	•••••••••
687	38	3.88	74	7.56	94	••••••••••••••••
670	56	5.73	130	13.29	90	•••••••••••••••••••••••
657	66	6.75	196	20.04	83	•••••••••••••••••••••••••••
645	87	8.90	283	28.94	75	••••••••••••••••••••••••••••••••••••
635	90	9.21	373	38.15	66	•••••••••••••••••••••••••••••••••••••
626	86	8.80	459	46.95	57	•••••••••••••••••••••••••••••••••••
617	91	9.31	550	56.26	48	•••••••••••••••••••••••••••••••••••••
608	85	8.70	635	64.96	39	•••••••••••••••••••••••••••••••••••
600	69	7.06	704	72.02	31	••••••••••••••••••••••••••••
593	61	6.24	765	78.26	25	•••••••••••••••••••••••••
585	51	5.22	816	83.48	19	•••••••••••••••••••••
578	40	4.09	856	87.57	14	••••••••••••••••
570	37	3.78	893	91.35	10	•••••••••••••••
563	29	2.96	922	94.31	07	••••••••••••
555	16	1.63	938	95.94	05	•••••••
547	9	.92	947	96.86	04	••••
539	11	1.12	958	97.98	03	••••
531	6	.61	964	98.59	02	••
522	7	.71	971	99.30	01	•••
512	2	.20	973	99.50	01	•
501	2	.20	975	99.70	01	•
489	1	.10	976	99.80	01	
437	1	.10	977	99.90	01	

PANAMA READING 309 582 MAY 80 6-0000 1 005-1759

Administrators' Summary - Grade 9

THIS GROUP:
MEAN 612.10
STANDARD DEVIATION 44.67

FIRST QUARTILE 578.36
MEDIAN 608.21
THIRD QUARTILE 635.44

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank	Frequency Profile % - 2.5 5 7.5 10 12.5 15 17.5
743	7	1.20	7	1.20	99	•••••
708	15	2.57	22	3.77	98	••••••••••
687	17	2.92	39	6.69	95	••••••••••••
670	39	6.70	78	13.39	90	•••••••••••••••••••••••••••
657	40	6.87	118	20.26	83	•••••••••••••••••••••••••••
645	25	4.29	143	24.55	78	•••••••••••••••••
635	44	7.56	187	32.11	72	••••••••••••••••••••••••••••••
626	49	8.41	236	40.52	64	••••••••••••••••••••••••••••••••••
617	42	7.21	278	47.73	56	•••••••••••••••••••••••••••••
608	45	7.73	323	55.46	48	•••••••••••••••••••••••••••••••
600	39	6.70	362	62.16	41	•••••••••••••••••••••••••••
593	37	6.35	399	68.51	35	•••••••••••••••••••••••••
585	33	5.67	432	74.18	29	•••••••••••••••••••••••
578	32	5.49	464	79.67	23	••••••••••••••••••••••
570	27	4.63	491	84.30	18	•••••••••••••••••••
563	23	3.95	514	88.25	14	••••••••••••••••
555	21	3.60	535	91.85	10	••••••••••••••
547	17	2.92	552	94.77	07	••••••••••••
539	12	2.06	564	96.83	04	••••••••
531	9	1.54	573	98.37	02	••••••
522	6	1.03	579	99.40	01	••••
501	3	.51	582	99.91	01	••

READING 309 6960 MAY 80 0-0000 1 005-1759

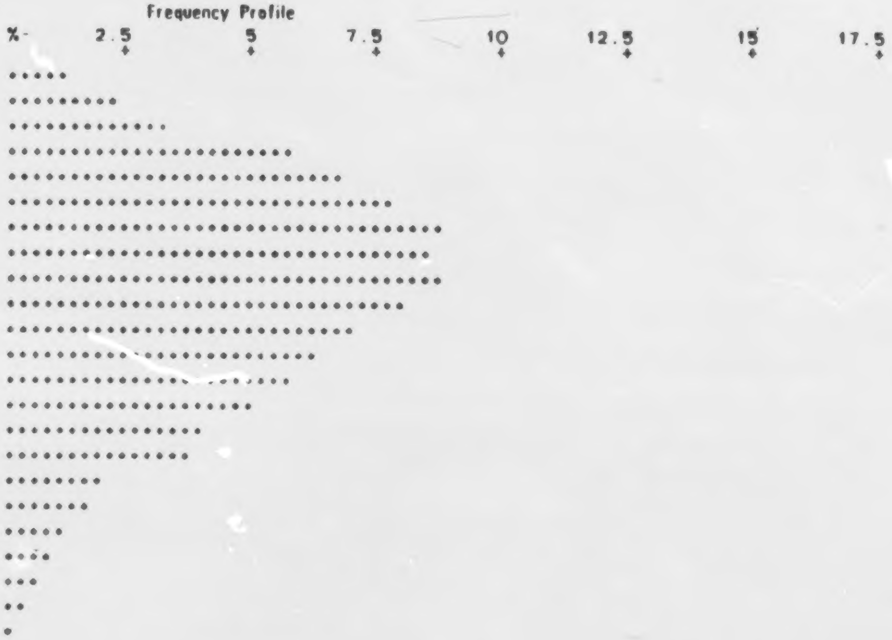
[illegible]

Administrators' Summary - Grade 9

THIS GROUP:
MEAN 616.04
STANDARD DEVIATION 41.98

FIRST QUARTILE 585.34
• MEDIAN 616.82
THIRD QUARTILE 644.74

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
743	80	1.14	80	1.14	99
708	155	2.22	235	3.36	98
687	228	3.27	463	6.63	95
670	396	5.68	859	12.31	91
657	467	6.70	1,326	19.01	84
645	543	7.80	1,869	26.81	77
635	605	8.69	2,474	35.50	69
626	588	8.44	3,062	43.94	60
617	611	8.77	3,673	52.71	52
608	552	7.93	4,225	60.64	43
600	496	7.12	4,721	67.76	36
593	433	6.22	5,154	73.98	29
585	401	5.76	5,555	79.74	23
578	356	5.11	5,911	84.85	18
570	272	3.90	6,183	88.75	13
563	255	3.66	6,438	92.41	09
555	136	1.95	6,574	94.36	07
547	127	1.82	6,701	96.18	05
539	90	1.29	6,791	97.47	03
531	71	1.02	6,862	98.49	02
522	49	.70	6,911	99.19	01
512	28	.40	6,939	99.59	01
501	12	.17	6,951	99.76	01
489	4	.05	6,955	99.81	01
476	1	.01	6,956	99.82	01
459	1	.01	6,957	99.83	01
437	3	.04	6,960	99.87	01



ATLANTIC READING 311 693 MAY 80 1-0000 1 003-3483

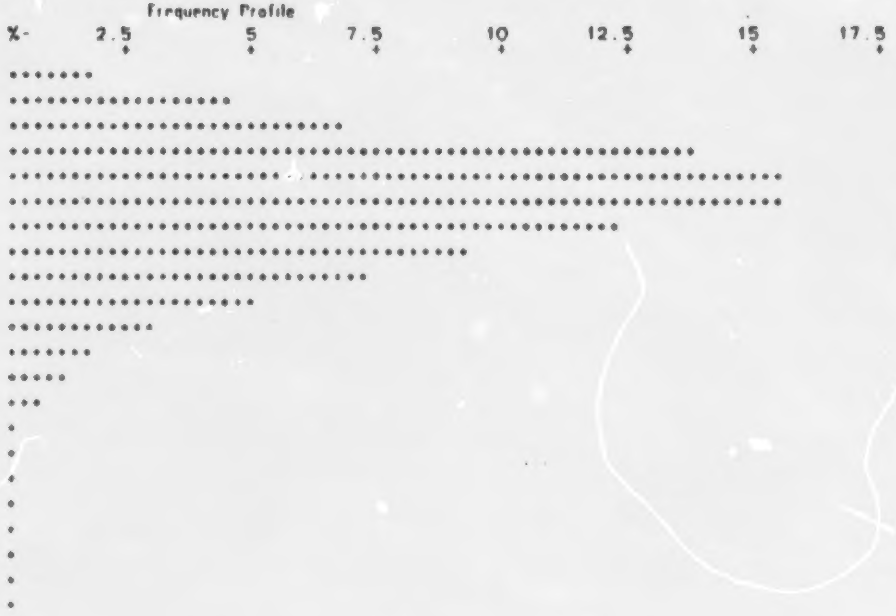
[illegible]

Administrators' Summary - Grade 11

THIS GROUP:
MEAN 630.89
STANDARD DEVIATION 36.55

FIRST QUARTILE 608.97
MEDIAN 631.00
THIRD QUARTILE 657.62

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
734	13	1.87	13	1.87	99
698	31	4.47	44	6.34	96
675	46	6.63	90	12.97	90
658	95	13.70	185	26.67	80
644	108	15.58	293	42.25	66
631	108	15.58	401	57.83	50
619	85	12.26	486	70.09	36
609	64	9.23	550	79.32	25
599	51	7.35	601	86.67	17
589	35	5.05	636	91.72	11
580	21	3.03	657	94.75	07
571	12	1.73	669	96.48	04
562	9	1.29	678	97.77	03
553	6	.86	684	98.63	02
544	2	.28	686	98.91	01
535	1	.14	687	99.05	01
526	1	.14	688	99.19	01
516	1	.14	689	99.33	01
506	1	.14	690	99.47	01
495	1	.14	691	99.61	01
483	1	.14	692	99.75	01
453	1	.14	693	99.89	01



757

75

GERMANY NORTH READING 311 1594 MAY 80 2-0000 1 005-0335

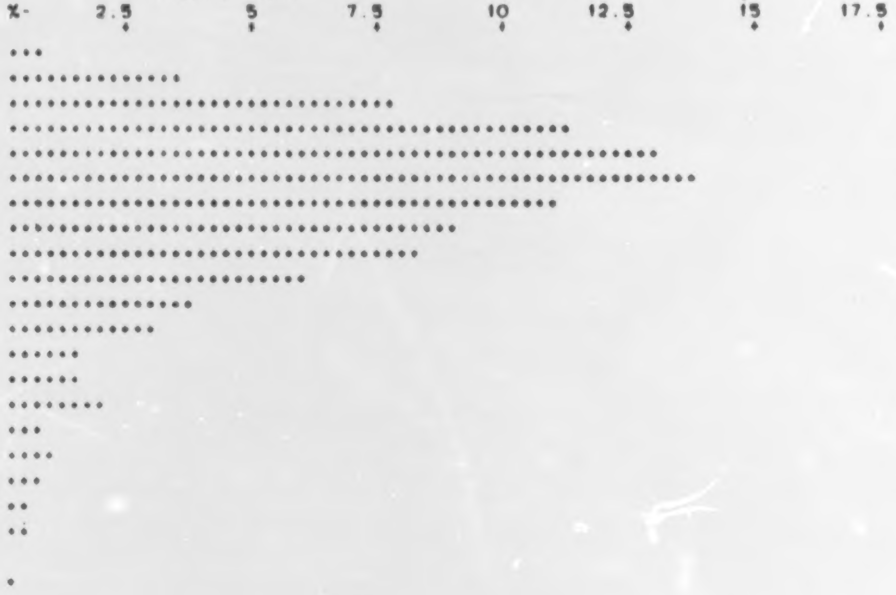
Administrators' Summary - Grade 11

THIS GROUP:
MEAN 621.54
STANDARD DEVIATION 41.44

FIRST QUARTILE 598.91
MEDIAN 630.50
THIRD QUARTILE 644.36

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
734	11	.69	11	.69	99
698	55	3.45	66	4.14	98
675	125	7.84	191	11.98	92
658	179	11.22	370	23.20	82
644	208	13.04	578	36.24	70
631	220	13.80	798	50.04	57
619	177	11.10	975	61.14	44
609	143	8.97	1,118	70.11	34
599	132	8.28	1,250	78.39	26
589	94	5.89	1,344	84.28	19
580	61	3.82	1,405	88.10	14
571	49	3.07	1,454	91.17	10
562	25	1.56	1,479	92.73	08
553	24	1.50	1,503	94.23	06
544	30	1.88	1,533	96.11	05
535	12	.75	1,545	96.86	03
526	15	.94	1,560	97.80	03
516	12	.75	1,572	98.55	02
506	7	.43	1,579	98.98	01
495	7	.43	1,586	99.41	01
483	1	.06	1,587	99.47	01
469	6	.37	1,593	99.84	01
453	1	.06	1,594	99.90	01

Frequency Profile



GERMANY SOUTH   READING   311   1120   MAY 80   3-0000   1   002-6068

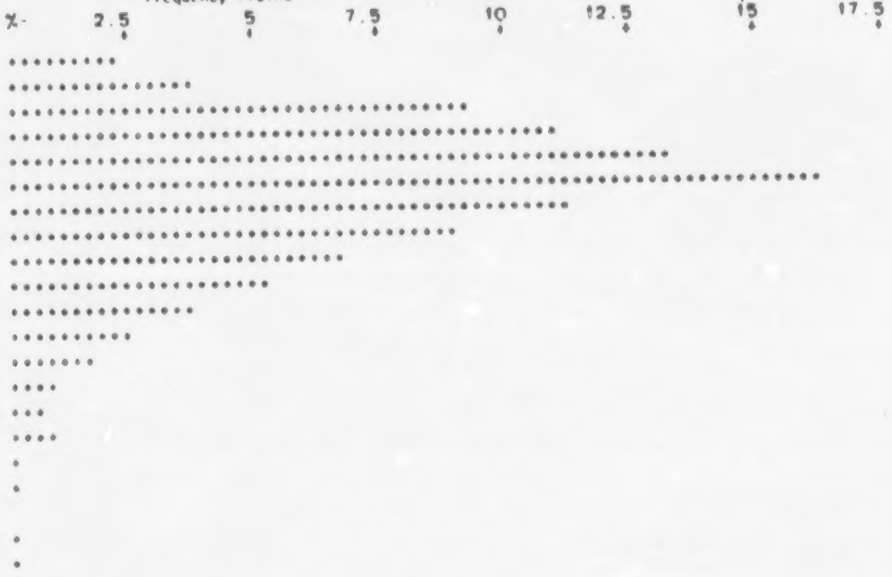
Administrators' Summary - Grade 11

THIS GROUP:
MEAN 628.41
STANDARD DEVIATION 40.08

FIRST QUARTILE 608.62
MEDIAN 630.86
THIRD QUARTILE 657.61

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
734	26	2.32	26	2.32	99
698	42	3.75	68	6.07	96
675	104	9.28	172	15.35	89
658	122	10.89	294	26.24	79
644	148	13.21	442	39.45	67
631	183	16.33	625	55.78	52
619	126	11.25	751	67.03	39
609	101	9.01	852	76.04	28
599	77	6.87	929	82.91	20
589	58	5.17	987	88.08	14
580	42	3.75	1,029	91.83	10
571	27	2.41	1,056	94.24	07
562	20	1.78	1,076	96.02	05
553	11	98	1,087	97.00	03
544	9	.80	1,096	97.80	03
535	10	.89	1,106	98.69	02
526	4	.35	1,110	99.04	01
516	4	.35	1,114	99.39	01
506	1	.08	1,115	99.47	01
495	2	.17	1,117	99.64	01
483	2	.17	1,119	99.81	01
396	1	.08	1,120	99.89	01

Frequency Profile



MEDITERRANEAN READING 311 435 MAY 80 4-0000 1 006-5801

BASIC SKILLS ASSESSMENT

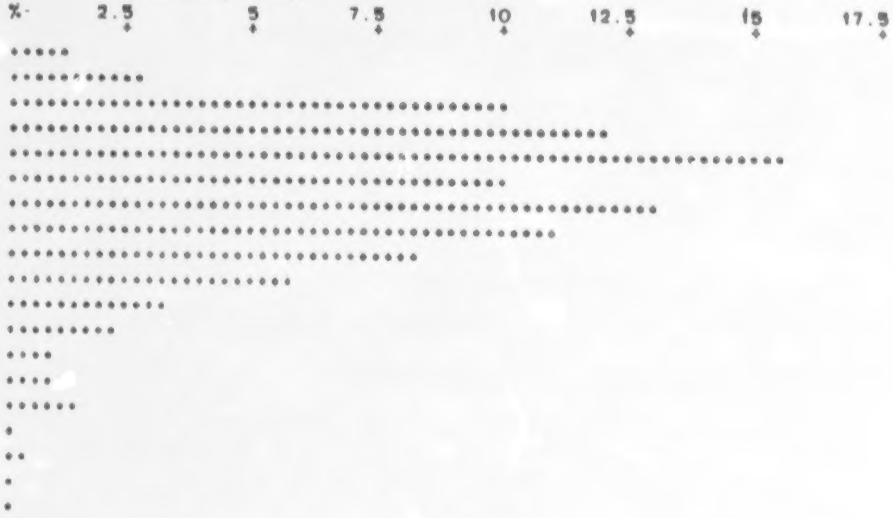
Administrators' Summary - Grade 11

THIS GROUP:
MEAN 627.46
STANDARD DEVIATION 37.43

FIRST QUARTILE 608.56
MEDIAN 630.65
THIRD QUARTILE 657.58

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
734	6	1.37	6	1.37	99
698	12	2.75	18	4.12	97
675	43	9.88	61	14.00	91
658	52	11.95	113	25.95	80
644	67	15.40	180	41.35	66
631	44	10.11	224	51.46	54
619	57	13.10	281	64.56	42
609	48	11.03	329	75.59	30
599	36	8.27	365	83.86	20
589	25	5.74	390	89.60	13
580	14	3.21	404	92.81	09
571	10	2.29	414	95.10	06
562	4	.91	418	96.01	04
553	5	1.14	423	97.15	03
544	7	1.60	430	98.75	02
535	1	.22	431	98.97	01
526	2	.45	433	99.42	01
516	1	.22	434	99.64	01
453	1	.22	435	99.86	01

Frequency Profile



PACIFIC READING 311 640 MAY 80 5-0000 1 007-5375

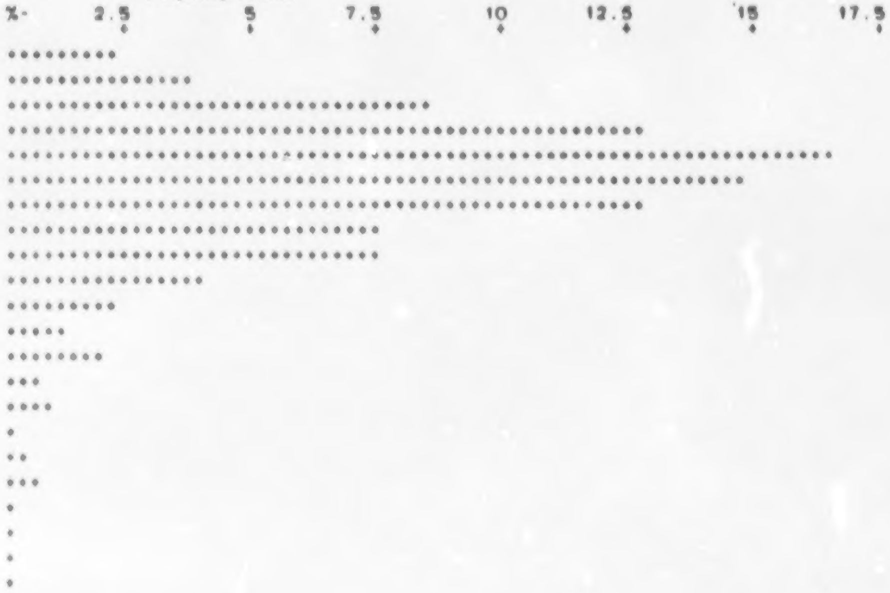
Administrators' Summary - Grade 11

THIS GROUP:
MEAN 630.21
STANDARD DEVIATION 39.55

FIRST QUARTILE 609.00
MEDIAN 631.08
THIRD QUARTILE 657.67

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
734	14	2.18	14	2.18	99
698	24	3.75	38	5.93	96
675	54	8.43	92	14.36	90
658	82	12.81	174	27.17	79
644	106	16.56	280	43.73	65
631	95	14.84	375	58.57	49
619	81	12.65	456	71.22	35
609	48	7.50	504	78.72	25
599	48	7.50	552	86.22	18
589	26	4.06	578	90.28	12
580	15	2.34	593	92.62	09
571	8	1.25	601	93.87	07
562	13	2.03	614	95.90	05
553	5	.78	619	96.68	04
544	6	.93	625	97.61	03
535	2	.31	627	97.92	02
526	3	.46	630	98.38	02
516	5	.78	635	99.16	01
506	1	.15	636	99.31	01
495	1	.15	637	99.46	01
483	1	.15	638	99.61	01
469	2	.31	640	99.92	01

Frequency Profile



PANAMA READING 311 463 MAY 80 6-0000 1 002-3675

BASIC SKILLS ASSESSMENT

Administrators' Summary - Grade 11

THIS GROUP:
MEAN 624.69
STANDARD DEVIATION 40.28

FIRST QUARTILE 599.18
MEDIAN 619.42
THIRD QUARTILE 644.43

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank	Frequency Profile %- 2.5 5 7.5 10 12.5 15 17.5
734	10	2.15	10	2.15	99	•••••••••
698	16	3.45	26	5.60	96	••••••••••••••
675	26	5.61	52	11.21	92	••••••••••••••••••••••
658	59	12.74	111	23.95	82	•••
644	68	14.68	179	38.63	69	•••
631	47	10.15	226	48.78	56	•••
619	68	14.68	294	63.46	44	•••
609	40	8.63	334	72.09	32	•••••••••••••••••••••••••••••••••••
599	42	9.07	376	81.16	23	••••••••••••••••••••••••••••••••••••
589	22	4.75	398	85.91	16	•••••••••••••••••••
580	21	4.53	419	90.44	12	••••••••••••••••••
571	16	3.45	435	93.89	08	••••••••••••••
562	6	1.29	441	95.18	05	•••••
553	3	.64	444	95.82	04	•••
544	5	1.07	449	96.89	04	••••
535	3	.64	452	97.53	03	•••
526	5	1.07	457	98.60	02	••••
516	2	.43	459	99.03	01	••
506	2	.43	461	99.46	01	••
495	2	.43	463	99.89	01	••

767

768

READING 311 4945 MAY 80 0-0000 1 002-3675

Administrators' Summary - Grade 11

THIS GROUP:
MEAN 626.34
STANDARD DEVIATION 39.93

FIRST QUARTILE 599.44
MEDIAN 630.75
THIRD QUARTILE 657.52

Measure on scale	Frequency	Percentage	Cumulative Frequency	Cumulative Percentage	Percentile Rank
734	80	1.61	80	1.61	99
698	180	3.64	260	5.25	97
675	398	8.04	658	13.29	91
658	589	11.91	1,247	25.20	81
644	705	14.25	1,952	39.45	68
631	697	14.09	2,649	53.54	53
619	594	12.01	3,243	65.55	40
609	444	8.97	3,687	74.52	30
599	386	7.80	4,073	82.32	22
589	260	5.25	4,333	87.57	15
580	174	3.51	4,507	91.08	11
571	122	2.46	4,629	93.54	08
562	77	1.55	4,706	95.09	06
553	54	1.09	4,760	96.18	04
544	59	1.19	4,819	97.37	03
535	29	.58	4,848	97.95	02
528	30	.60	4,878	98.55	02
516	25	.50	4,903	99.05	01
506	12	.24	4,915	99.29	01
495	13	.26	4,928	99.55	01
483	5	.10	4,933	99.65	01
469	8	.16	4,941	99.81	01
453	3	.06	4,944	99.87	01
396	1	.02	4,945	99.89	01